



## Clinical trial results: Treatment Resistance Following Anti-Cancer Therapies Summary

EudraCT number	2018-003612-45
Trial protocol	AT ES
Global end of trial date	14 December 2020

### Results information

Result version number	v1 (current)
This version publication date	22 December 2021
First version publication date	22 December 2021

### Trial information

#### Trial identification

Sponsor protocol code	A9001502
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#### Additional study identifiers

ISRCTN number	-
ClinicalTrials.gov id (NCT number)	NCT04436120
WHO universal trial number (UTN)	-

Notes:

#### Sponsors

Sponsor organisation name	Pfizer, Inc.
Sponsor organisation address	235 E 42nd Street, New York, United States, NY 10017
Public contact	Pfizer ClinicalTrials.gov Call Center, Pfizer, Inc., +1 8007181021, ClinicalTrials.gov_Inquiries@pfizer.com
Scientific contact	Pfizer ClinicalTrials.gov Call Center, Pfizer, Inc., +1 8007181021, ClinicalTrials.gov_Inquiries@pfizer.com

Notes:

#### Paediatric regulatory details

Is trial part of an agreed paediatric investigation plan (PIP)	No
Does article 45 of REGULATION (EC) No 1901/2006 apply to this trial?	No
Does article 46 of REGULATION (EC) No 1901/2006 apply to this trial?	No

Notes:

## Results analysis stage

Analysis stage	Final
Date of interim/final analysis	14 December 2020
Is this the analysis of the primary completion data?	Yes
Primary completion date	14 December 2020
Global end of trial reached?	Yes
Global end of trial date	14 December 2020
Was the trial ended prematurely?	Yes

Notes:

## General information about the trial

Main objective of the trial:

The primary objective is to obtain and analyze archival pre-treatment tumor samples and post-progression tumor biopsies to identify molecular markers of resistance to selected anti-cancer therapies.

Protection of trial subjects:

This study was conducted in compliance with the ethical principles originating in or derived from the Declaration of Helsinki and in compliance with all International Council for Harmonisation of Technical Requirements for Pharmaceuticals for Human Use (ICH) Good Clinical Practice (GCP) Guidelines. In addition, all local regulatory requirements were followed, in particular, those affording greater protection to the safety of trial subjects.

Background therapy: -

Evidence for comparator: -

Actual start date of recruitment	13 February 2019
Long term follow-up planned	No
Independent data monitoring committee (IDMC) involvement?	No

Notes:

## Population of trial subjects

### Subjects enrolled per country

Country: Number of subjects enrolled	Argentina: 6
Country: Number of subjects enrolled	Belgium: 4
Country: Number of subjects enrolled	France: 13
Country: Number of subjects enrolled	United Kingdom: 2
Country: Number of subjects enrolled	United States: 11
Worldwide total number of subjects	36
EEA total number of subjects	17

Notes:

### Subjects enrolled per age group

In utero	0
Preterm newborn - gestational age < 37 wk	0
Newborns (0-27 days)	0
Infants and toddlers (28 days-23 months)	0
Children (2-11 years)	0

Adolescents (12-17 years)	0
Adults (18-64 years)	14
From 65 to 84 years	22
85 years and over	0

## Subject disposition

### Recruitment

Recruitment details:

Of 97 subjects screened, 38 were enrolled into 7 cohorts. Only 36 subjects in the Safety Analysis (SA) population enrolled and for whom a de novo biopsy procedure or research blood draw was performed were analyzed. No subjects discontinued from study due to adverse events (AEs). There was no study drug or study device involved in this study.

### Pre-assignment

Screening details:

There were 38 subjects enrolled at 24 sites and only 36 subjects were included in the SA population who had de novo biopsy or research blood draw performed.

### Period 1

Period 1 title	Overall Study (overall period)
Is this the baseline period?	Yes
Allocation method	Not applicable
Blinding used	Not blinded

### Arms

Are arms mutually exclusive?	No
<b>Arm title</b>	Cohort 1: Non-small cell lung carcinoma (NSCLC) monotherapy

Arm description:

Progressive disease on 1st line monotherapy anti-programmed cell death receptor 1 or programmed cell death ligand 1 (anti-PD-1/-L1).

Arm type	Tumor biopsy and blood draw
Investigational medicinal product name	Pharmaceutical Forms was not applicable. Choose cohort 1 was meaningless, at least one arm should be chosen in this section, otherwise there would be an error.
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Anticoagulant and preservative solution for blood
Routes of administration	Not mentioned

Dosage and administration details:

NA

<b>Arm title</b>	Cohort 2: NSCLC combination
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Arm description:

Progressive disease on 1st line anti-PD-1/-L1 plus standard doublet platinum-containing regimen; or progressive disease on 1st line anti-PD-1/-L1 plus standard doublet platinum-containing regimen followed by continuation of single agent anti-PD-1/-L1.

Arm type	Tumor biopsy and blood draw
No investigational medicinal product assigned in this arm	
<b>Arm title</b>	Cohort 3: Renal cell carcinoma (RCC) with clear cell component

Arm description:

Progressive disease on 2nd line monotherapy anti-PD-1/-L1; or progressive disease on 1st line combination of doublet anti-PD-1/-L1 with anti-CTLA-4; or progressive disease on 1st line combination of avelumab with axitinib or pembrolizumab with axitinib.

Arm type	Tumor biopsy and blood draw
No investigational medicinal product assigned in this arm	
<b>Arm title</b>	Cohort 4: HR+ HER2- adenocarcinoma of the breast

Arm description:

Progressive disease on 1st line combination of doublet palbociclib with hormonal therapy.

Arm type	Tumor biopsy and blood draw
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No investigational medicinal product assigned in this arm	
<b>Arm title</b>	Cohort 5: Castrate-resistant adenocarcinoma of the prostate
Arm description: Progressive disease on enzalutamide monotherapy.	
Arm type	Tumor biopsy and blood draw
No investigational medicinal product assigned in this arm	
<b>Arm title</b>	Cohort 6: Castrate-resistant adenocarcinoma of the prostate
Arm description: Progressive disease on abiraterone in combination with prednisone.	
Arm type	Tumor biopsy and blood draw
No investigational medicinal product assigned in this arm	
<b>Arm title</b>	Cohort 7: gBRCAm HER2- adenocarcinoma of the breast
Arm description: Progressive disease on a poly ADP-ribose polymerase (PARP) inhibitor monotherapy in subjects previously treated with chemotherapy in the neoadjuvant, adjuvant, or metastatic setting.	
Arm type	Tumor biopsy and blood draw
No investigational medicinal product assigned in this arm	
<b>Arm title</b>	The biomarker evaluable target (BET) Populations in Cohort 4
Arm description: Progressive disease on 1st line combination of doublet palbociclib with hormonal therapy.	
Arm type	Tumor biopsy and blood draw
No investigational medicinal product assigned in this arm	
<b>Arm title</b>	The BET (whole exome tumor DNA [WETD]) Populations in Cohort 4
Arm description: Progressive disease on 1st line combination of doublet palbociclib with hormonal therapy.	
Arm type	Tumor biopsy and blood draw
No investigational medicinal product assigned in this arm	
<b>Arm title</b>	The BE [targeted blood cfDNA (TBD)] Populations in Cohort 4
Arm description: Progressive disease on 1st line combination of doublet palbociclib with hormonal therapy.	
Arm type	Tumor biopsy and blood draw
No investigational medicinal product assigned in this arm	
<b>Arm title</b>	The BE (TBD) Populations in Cohort 5 & 6
Arm description: Progressive disease on enzalutamide monotherapy and on abiraterone in combination with prednisone.	
Arm type	Tumor biopsy and blood draw
No investigational medicinal product assigned in this arm	
<b>Arm title</b>	The BET Populations in Cohort 5 & 6
Arm description: Progressive disease on enzalutamide monotherapy and on abiraterone in combination with prednisone.	
Arm type	Tumor biopsy and blood draw
No investigational medicinal product assigned in this arm	
<b>Arm title</b>	The BET (WETD) Populations in Cohort 5 & 6
Arm description: Progressive disease on enzalutamide monotherapy and on abiraterone in combination with prednisone.	
Arm type	Tumor biopsy and blood draw
No investigational medicinal product assigned in this arm	
<b>Arm title</b>	The BET [targeted tumor RNA (TTR)] Populations in Cohort 5 & 6

Arm description:	
Progressive disease on enzalutamide monotherapy and on abiraterone in combination with prednisone.	
Arm type	Tumor biopsy and blood draw
No investigational medicinal product assigned in this arm	
<b>Arm title</b>	The BET [WTTR] Populations in Cohort 5 & 6
Arm description:	
Progressive disease on enzalutamide monotherapy and on abiraterone in combination with prednisone.	
Arm type	Tumor biopsy and blood draw
No investigational medicinal product assigned in this arm	

Number of subjects in period 1	Cohort 1: Non-small cell lung carcinoma (NSCLC) monotherapy	Cohort 2: NSCLC combination	Cohort 3: Renal cell carcinoma (RCC) with clear cell component
Started	1	4	5
Completed	1	4	5
Not completed	0	0	0
Lost to follow-up	-	-	-

Number of subjects in period 1	Cohort 4: HR+ HER2- adenocarcinoma of the breast	Cohort 5: Castrate-resistant adenocarcinoma of the prostate	Cohort 6: Castrate-resistant adenocarcinoma of the prostate
Started	11	5	11
Completed	10	5	10
Not completed	1	0	1
Lost to follow-up	1	-	1

Number of subjects in period 1	Cohort 7: gBRCAm HER2- adenocarcinoma of the breast	The biomarker evaluable target (BET) Populations in Cohort 4	The BET (whole exome tumor DNA [WETD]) Populations in Cohort 4
Started	1	6	3
Completed	1	6	3
Not completed	0	0	0
Lost to follow-up	-	-	-

Number of subjects in period 1	The BE [targeted blood cfDNA (TBD)] Populations in Cohort 4	The BE (TBD) Populations in Cohort 5 & 6	The BET Populations in Cohort 5 & 6
Started	8	10	6
Completed	8	10	6
Not completed	0	0	0
Lost to follow-up	-	-	-

Number of subjects in period 1	The BET (WETD) Populations in Cohort 5 & 6	The BET [targeted tumor RNA (TTR)] Populations in Cohort 5 & 6	The BET [WTTR] Populations in Cohort 5 & 6
Started	2	2	6

Completed	2	2	6
Not completed	0	0	0
Lost to follow-up	-	-	-

## Baseline characteristics

### Reporting groups

Reporting group title	Overall Study
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Reporting group description:

36 subjects were SA populations who had de novo biopsy or research blood draw performed.

Reporting group values	Overall Study	Total	
Number of subjects	36	36	
Age categorical			
Units: Subjects			
In utero	0	0	
Preterm newborn infants (gestational age < 37 wks)	0	0	
Newborns (0-27 days)	0	0	
Infants and toddlers (28 days-23 months)	0	0	
Children (2-11 years)	0	0	
Adolescents (12-17 years)	0	0	
Adults (18-64 years)	14	14	
From 65-84 years	22	22	
85 years and over	0	0	
Age Continuous			
Data collected for Demographics and Baseline Characteristics Summary only in Safety Analysis Population			
Units: Years			
arithmetic mean	67.1		
standard deviation	± 8.99	-	
Sex: Female, Male			
Data collected for Demographics and Baseline Characteristics Summary only in Safety Analysis Population			
Units: Subjects			
Female	12	12	
Male	24	24	
Race/Ethnicity, Customized			
Data collected for Demographics and Baseline Characteristics Summary only in Safety Analysis Population			
Units: Subjects			
White	28	28	
Multiracial	1	1	
Not reported	7	7	
Ethnicity (NIH/OMB)			
Data collected for Demographics and Baseline Characteristics Summary only in Safety Analysis Population			
Units: Subjects			
Hispanic or Latino	6	6	
Not Hispanic or Latino	18	18	
Unknown or Not Reported	12	12	



## End points

### End points reporting groups

Reporting group title	Cohort 1: Non-small cell lung carcinoma (NSCLC) monotherapy
Reporting group description: Progressive disease on 1st line monotherapy anti-programmed cell death receptor 1 or programmed cell death ligand 1 (anti-PD-1/-L1).	
Reporting group title	Cohort 2: NSCLC combination
Reporting group description: Progressive disease on 1st line anti-PD-1/-L1 plus standard doublet platinum-containing regimen; or progressive disease on 1st line anti-PD-1/-L1 plus standard doublet platinum-containing regimen followed by continuation of single agent anti-PD-1/-L1.	
Reporting group title	Cohort 3: Renal cell carcinoma (RCC) with clear cell component
Reporting group description: Progressive disease on 2nd line monotherapy anti-PD-1/-L1; or progressive disease on 1st line combination of doublet anti-PD-1/-L1 with anti-CTLA-4; or progressive disease on 1st line combination of avelumab with axitinib or pembrolizumab with axitinib.	
Reporting group title	Cohort 4: HR+ HER2- adenocarcinoma of the breast
Reporting group description: Progressive disease on 1st line combination of doublet palbociclib with hormonal therapy.	
Reporting group title	Cohort 5: Castrate-resistant adenocarcinoma of the prostate
Reporting group description: Progressive disease on enzalutamide monotherapy.	
Reporting group title	Cohort 6: Castrate-resistant adenocarcinoma of the prostate
Reporting group description: Progressive disease on abiraterone in combination with prednisone.	
Reporting group title	Cohort 7: gBRCAm HER2- adenocarcinoma of the breast
Reporting group description: Progressive disease on a poly ADP-ribose polymerase (PARP) inhibitor monotherapy in subjects previously treated with chemotherapy in the neoadjuvant, adjuvant, or metastatic setting.	
Reporting group title	The biomarker evaluable target (BET) Populations in Cohort 4
Reporting group description: Progressive disease on 1st line combination of doublet palbociclib with hormonal therapy.	
Reporting group title	The BET (whole exome tumor DNA [WETD]) Populations in Cohort 4
Reporting group description: Progressive disease on 1st line combination of doublet palbociclib with hormonal therapy.	
Reporting group title	The BE [targeted blood cfDNA (TBD)] Populations in Cohort 4
Reporting group description: Progressive disease on 1st line combination of doublet palbociclib with hormonal therapy.	
Reporting group title	The BE (TBD) Populations in Cohort 5 & 6
Reporting group description: Progressive disease on enzalutamide monotherapy and on abiraterone in combination with prednisone.	
Reporting group title	The BET Populations in Cohort 5 & 6
Reporting group description: Progressive disease on enzalutamide monotherapy and on abiraterone in combination with prednisone.	
Reporting group title	The BET (WETD) Populations in Cohort 5 & 6
Reporting group description: Progressive disease on enzalutamide monotherapy and on abiraterone in combination with prednisone.	
Reporting group title	The BET [targeted tumor RNA (TTR)] Populations in Cohort 5 & 6
Reporting group description: Progressive disease on enzalutamide monotherapy and on abiraterone in combination with prednisone.	

Reporting group title	The BET [WTTR] Populations in Cohort 5 & 6
Reporting group description:	
Progressive disease on enzalutamide monotherapy and on abiraterone in combination with prednisone.	

**Primary: Change in the Frequency of Gene Alterations Between Pre-treatment Tumor Samples (Archival) and Post-progression (De Novo) Tumor Biopsies**

End point title	Change in the Frequency of Gene Alterations Between Pre-treatment Tumor Samples (Archival) and Post-progression (De Novo) Tumor Biopsies <sup>[1][2]</sup>
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End point description:

Using the targeted panel next-generation sequencing (NGS) to analyze mutation frequency between the archival and de novo tumor samples in the biomarker evaluable target (BET) populations of Cohort 4 (N=6) and Cohort 5&6 (N=6), using the whole exome sequencing NGS to analyze mutation frequency between the archival and de novo tumor biopsies in the BET (whole exome tumor DNA [WETD]) populations of Cohort 4 (N=3) and Cohort 5&6 (N=2). Biomarker evaluable target (BET) Population and BET (whole exome tumor DNA [WETD]) Population were analyzed. The BET population was defined as subjects in the BE population who have a targeted tumor DNA panel biomarker result from both the archival and de novo biopsy tumor tissue biospecimen. BET (WETD) was defined as all subjects in the BET population who have results of WETD NGS sample analysis from both the archival and de novo biopsy tumor tissue biospecimen.

End point type	Primary
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End point timeframe:

Through study completion, approximately 3 months

Notes:

[1] - No statistical analyses have been specified for this primary end point. It is expected there is at least one statistical analysis for each primary end point.

Justification: Statistic analysis is frequency change and 95% CI in this case.

[2] - The end point is not reporting statistics for all the arms in the baseline period. It is expected all the baseline period arms will be reported on when providing values for an end point on the baseline period.

Justification: Analysis was planned only for the arms specified.

End point values	The biomarker evaluable target (BET) Populations in Cohort 4	The BET (whole exome tumor DNA [WETD]) Populations in Cohort 4	The BET Populations in Cohort 5 & 6	The BET (WETD) Populations in Cohort 5 & 6
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	6	3	6	2
Units: Percentage of subjects				
number (confidence interval 95%)				
AKT1 c.238T>C	16.7 (-28.9 to 56.4)	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)
ARHGAP39 c.2000G>A	16.7 (-28.9 to 56.4)	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)
ARHGAP39 c.2085G>C	-16.7 (-56.4 to 28.9)	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)
ARID1A c.3145_3146dupCT	0.0 (-39.0 to 39.0)	0.0 (-56.1 to 56.1)	999999 (999999 to 999999)	999999 (999999 to 999999)
ARID1A c.3977dupC	0.0 (-39.0 to 39.0)	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)
ARID2 c.1803dupG	0.0 (-39.0 to 39.0)	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)

ASXL1 c.1934dupG	16.7 (-28.9 to 56.4)	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)
ATM c.5557G>A	0.0 (-39.0 to 39.0)	0.0 (-56.1 to 56.1)	999999 (999999 to 999999)	999999 (999999 to 999999)
ATM c.5948A>G	0.0 (-39.0 to 39.0)	0.0 (-56.1 to 56.1)	0.0 (-39.0 to 39.0)	0.0 (-65.8 to 65.8)
AXIN1 c.1881G>T	16.7 (-28.9 to 56.4)	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)
BAP1 c.179G>A	0.0 (-39.0 to 39.0)	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)
BCLAF1 c.615_619delATCAGinsGTCAT	16.7 (-28.9 to 56.4)	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)
BCOR c.476C>A	16.7 (-28.9 to 56.4)	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)
BRCA1 c.2612C>T	16.7 (-28.9 to 56.4)	999999 (999999 to 999999)	0.0 (-39.0 to 39.0)	0.0 (-65.8 to 65.8)
BRCA1 c.3113A>G	16.7 (-28.9 to 56.4)	999999 (999999 to 999999)	0.0 (-39.0 to 39.0)	0.0 (-65.8 to 65.8)
BRCA1 c.3548A>G	16.7 (-28.9 to 56.4)	999999 (999999 to 999999)	0.0 (-39.0 to 39.0)	0.0 (-65.8 to 65.8)
BRCA1 c.4837A>G	16.7 (-28.9 to 56.4)	999999 (999999 to 999999)	0.0 (-39.0 to 39.0)	0.0 (-65.8 to 65.8)
BRCA1 c.4956G>A	0.0 (-39.0 to 39.0)	999999 (999999 to 999999)	0.0 (-39.0 to 39.0)	999999 (999999 to 999999)
BRCA2 c.1114A>C	0.0 (-39.0 to 39.0)	0.0 (-56.1 to 56.1)	0.0 (-39.0 to 39.0)	999999 (999999 to 999999)
BRCA2 c.2803G>A	0.0 (-39.0 to 39.0)	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)
BRCA2 c.7397T>C	0.0 (-39.0 to 39.0)	0.0 (-56.1 to 56.1)	0.0 (-39.0 to 39.0)	0.0 (-65.8 to 65.8)
BRCA2 c.9976A>T	0.0 (-39.0 to 39.0)	0.0 (-56.1 to 56.1)	999999 (999999 to 999999)	999999 (999999 to 999999)
BRIP1 c.14G>C	-16.7 (-56.4 to 28.9)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
BRIP1 c.2755T>C	0.0 (-39.0 to 39.0)	0.0 (-56.1 to 56.1)	0.0 (-39.0 to 39.0)	0.0 (-65.8 to 65.8)
CBR3 c.730G>A	16.7 (-28.9 to 56.4)	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)
CCNE1 c.1117G>A	-16.7 (-56.4 to 28.9)	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)
CD22 c.757G>T	-16.7 (-56.4 to 28.9)	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)
CD3EAP c.1516C>A	16.7 (-28.9 to 56.4)	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)

CDH1 c.1269delT	0.0 (-39.0 to 39.0)	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)
CDH1 c.466T>A	0.0 (-39.0 to 39.0)	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)
CREBBP c.1792C>T	16.7 (-28.9 to 56.4)	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)
CSF3R c.14G>T	0.0 (-39.0 to 39.0)	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)
DNM2 c.1782-5delC	0.0 (-39.0 to 39.0)	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)
DPYD c.1471G>T	16.7 (-28.9 to 56.4)	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)
DYNC2H1 c.1714A>G	-16.7 (-56.4 to 28.9)	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)
ECH1 c.122A>C	16.7 (-28.9 to 56.4)	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)
ERBB2 c.1958C>G	16.7 (-28.9 to 56.4)	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)
ERBB2 c.2446C>T	-16.7 (-56.4 to 28.9)	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)
ERCC5 c.440C>G	-16.7 (-56.4 to 28.9)	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)
ESR1 c.1609T>A	16.7 (-28.9 to 56.4)	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)
ESR1 c.1610_1613delATGAinsGTGG	16.7 (-28.9 to 56.4)	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)
ESR1 c.1613A>G	16.7 (-28.9 to 56.4)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
FAM175A c.826_828delGAG	-16.7 (-56.4 to 28.9)	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)
FANCA c.2426G>A	16.7 (-28.9 to 56.4)	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)
FANCD2 c.1214A>G	-16.7 (-56.4 to 28.9)	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)
FANCE c.17C>G	-16.7 (-16.7 to 28.9)	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)
FAT1 c.3818A>G	16.7 (-28.9 to 56.4)	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)
FGF9 c.375T>A	0.0 (-39.0 to 39.0)	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)
FGFR1 c.358+4G>A	-16.7 (-56.4 to 28.9)	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)

FGFR1OP c.985-6_985-5dupTT	-16.7 (-56.4 to 28.9)	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)
FLT4 c.1019G>C	16.7 (-28.9 to 56.4)	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)
FOXA1 c.247G>A	16.7 (-28.9 to 56.4)	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)
FOXA1 c.801G>T	0.0 (-39.0 to 39.0)	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)
FOXA1 c.874G>T	16.7 (-28.9 to 56.4)	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)
FOXQ1 c.1013A>G	-16.7 (-56.4 to 28.9)	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)
FOXQ1 c.895G>A	16.7 (-28.9 to 56.4)	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)
FRS2 c.236G>T	16.7 (-28.9 to 56.4)	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)
GATA2 c.527C>T	0.0 (-39.0 to 39.0)	0.0 (-56.1 to 56.1)	999999 (999999 to 999999)	999999 (999999 to 999999)
GATA3 c.1223_1224insA	0.0 (-39.0 to 39.0)	0.0 (-56.1 to 56.1)	999999 (999999 to 999999)	999999 (999999 to 999999)
GNAS c.521G>A	16.7 (-28.9 to 56.4)	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)
GOT2 c.1037T>G	16.7 (-28.9 to 56.4)	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)
HEATR1 c.6347-4_6347-3dupTT	-16.7 (-56.4 to 28.9)	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)
IRF2 c.744G>A	16.7 (-28.9 to 56.4)	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)
IRS2 c.3170G>A	16.7 (-28.9 to 56.4)	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)
ITPKB c.1222T>G	16.7 (-28.9 to 56.4)	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)
JAK1 c.1252G>C	16.7 (-28.9 to 56.4)	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)
JAK2 c.2743G>T	16.7 (-28.9 to 56.4)	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)
JAK3 c.757A>G	16.7 (-28.9 to 56.4)	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)
KDM6A c.2859-5delT	-16.7 (-56.4 to 28.9)	999999 (999999 to 999999)	16.7 (-28.9 to 56.4)	999999 (999999 to 999999)
KDR c.2921G>T	-16.7 (-56.4 to 28.9)	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)

KMT2C c.2536delG	0.0 (-39.0 to 39.0)	0 (-56.1 to 56.1)	999999 (999999 to 999999)	999999 (999999 to 999999)
KMT2C c.4270C>T	16.7 (-28.9 to 56.4)	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)
LMAN1 c.823-2dupA	-16.7 (-56.4 to 28.9)	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)
LRP1B c.143A>G	16.7 (-28.9 to 56.4)	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)
LRP1B c.5737G>A	-16.7 (-56.4 to 28.9)	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)
LTN1 c.1717A>G	16.7 (-28.9 to 56.4)	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)
LYN c.475G>T	16.7 (-28.9 to 56.4)	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)
MAP2K4 c.179C>A	-16.7 (-56.4 to 28.9)	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)
MED12 c.1364G>T	16.7 (-28.9 to 56.4)	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)
MGMT c.520A>G	16.7 (-28.9 to 56.4)	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)
MGMT c.626A>G	16.7 (-28.9 to 56.4)	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)
MLH1 c.655A>G	16.7 (-28.9 to 56.4)	0.0 (-56.1 to 56.1)	0.0 (-39.0 to 39.0)	999999 (999999 to 999999)
MSH2 c.1748A>G	0.0 (-39.0 to 39.0)	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)
MSH6 c.116G>A	0.0 (-39.0 to 39.0)	0.0 (-56.1 to 56.1)	0.0 (-39.0 to 39.0)	0.0 (-65.8 to 65.8)
MSH6 c.3557-4dupT	16.7 (-28.9 to 56.4)	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)
MTHFR c.1286A>C	16.7 (-28.9 to 56.4)	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)
MUTYH c.1014G>C	0.0 (-39.0 to 39.0)	0.0 (-56.1 to 56.1)	0.0 (-39.0 to 39.0)	999999 (999999 to 999999)
MUTYH c.1187G>A	0.0 (-39.0 to 39.0)	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)
MYB c.1781C>G	0.0 (-39.0 to 39.0)	0.0 (-56.1 to 56.1)	999999 (999999 to 999999)	999999 (999999 to 999999)
NBN c.553G>C	0.0 (-39.0 to 39.0)	0.0 (-56.1 to 56.1)	-33.3 (-70.0 to 18.7)	0.0 (-65.8 to 65.8)
NBN c.683T>G	0.0 (-39.0 to 39.0)	0.0 (-56.1 to 56.1)	999999 (999999 to 999999)	999999 (999999 to 999999)
NCOR1 c.4135G>T	0.0 (-39.0 to 39.0)	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)

NCOR2 c.1597G>A	0.0 (-39.0 to 39.0)	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)
NF1 c.7063-1G>T	-16.7 (-56.4 to 28.9)	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)
NF1 c.849T>G	16.7 (-28.9 to 56.4)	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)
NOTCH1 c.2588-4G>A	16.7 (-28.9 to 56.4)	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)
NOTCH2 c.3522+3G>A	16.7 (-28.9 to 56.4)	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)
NOTCH3 c.539C>T	0.0 (-39.0 to 39.0)	0.0 (-56.1 to 56.1)	999999 (999999 to 999999)	999999 (999999 to 999999)
NTRK1 c.1806-4delA	16.7 (-28.9 to 56.4)	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)
NUP98 c.3310G>A	16.7 (-28.9 to 56.4)	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)
PALB2 c.1676A>G	0.0 (-39.0 to 39.0)	0.0 (-56.1 to 56.1)	0.0 (-39.0 to 39.0)	0.0 (-65.8 to 65.8)
PALB2 c.2014G>C	0.0 (-39.0 to 39.0)	0.0 (-56.1 to 56.1)	0.0 (-39.0 to 39.0)	0.0 (-65.8 to 65.8)
PIK3CA c.1035T>A	0.0 (-39.0 to 39.0)	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)
PIK3CA c.1633G>A	0.0 (-39.0 to 39.0)	0.0 (-56.1 to 56.1)	999999 (999999 to 999999)	999999 (999999 to 999999)
PIK3CA c.3140A>G	0.0 (-39.0 to 39.0)	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)
PIK3CG c.41A>G	-16.7 (-56.4 to 28.9)	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)
PLCG2 c.2011A>G	16.7 (-28.9 to 56.4)	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)
PMS2 c.13G>C	0.0 (-39.0 to 39.0)	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)
PMS2 c.1408C>T	0.0 (-39.0 to 39.0)	0.0 (-56.1 to 56.1)	0.0 (-39.0 to 39.0)	999999 (999999 to 999999)
PMS2 c.1454C>A	0.0 (-39.0 to 39.0)	0.0 (-56.1 to 56.1)	999999 (999999 to 999999)	999999 (999999 to 999999)
PMS2 c.1621A>G	0.0 (-39.0 to 39.0)	0.0 (-56.1 to 56.1)	0.0 (-39.0 to 39.0)	0.0 (-65.8 to 65.8)
PMS2 c.2570G>C	0.0 (-39.0 to 39.0)	0.0 (-56.1 to 56.1)	33.3 (-18.7 to 70.0)	50.0 (-48.6 to 90.5)
PMS2 c.89A>G	0.0 (-39.0 to 39.0)	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)
POLD1 c.2959delG	-16.7 (-56.4 to 28.9)	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)

PRKDC c.6424C>T	-16.7 (-56.4 to 28.9)	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)
PTCH1 c.3746C>T	16.7 (-28.9 to 56.4)	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)
PTCH2 c.2134G>A	0.0 (-39.0 to 39.0)	0 (-56.1 to 56.1)	999999 (999999 to 999999)	999999 (999999 to 999999)
PTPN13 c.4097T>A	-16.7 (-56.4 to 28.9)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
PTPN13 c.5683A>T	0.0 (-39.0 to 39.0)	0.0 (-56.1 to 56.1)	999999 (999999 to 999999)	999999 (999999 to 999999)
PTPN13 c.6256T>G	16.7 (-28.9 to 56.4)	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)
PUS3 c.1380G>C	16.7 (-28.9 to 56.4)	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)
RAD51C c.376G>A	0.0 (-39.0 to 39.0)	0.0 (-56.1 to 56.1)	0.0 (-39.0 to 39.0)	999999 (999999 to 999999)
RAD51D c.494G>A	0.0 (-39.0 to 39.0)	0.0 (-56.1 to 56.1)	999999 (999999 to 999999)	999999 (999999 to 999999)
RIT1 c.625G>C	0.0 (-39.0 to 39.0)	0.0 (-56.1 to 56.1)	999999 (999999 to 999999)	999999 (999999 to 999999)
RNF43 c.1252C>A	16.7 (-28.9 to 56.4)	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)
ROS1 c.1775_1777delGTG	0.0 (-39.0 to 39.0)	0.0 (-56.1 to 56.1)	999999 (999999 to 999999)	999999 (999999 to 999999)
RSF1 c.3025G>C	-16.7 (-56.4 to 28.9)	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)
SF3B1 c.2077+4A>G	16.7 (-28.9 to 56.4)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
SOD2 c.47T>C	16.7 (-28.9 to 56.4)	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)
SYNE1 c.18758G>A	16.7 (-28.9 to 56.4)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
TBC1D12 c.1246C>T	-16.7 (-56.4 to 28.9)	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)
TBC1D9B c.3356A>C	16.7 (-28.9 to 56.4)	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)
TBX3 c.364G>A	0.0 (-39.0 to 39.0)	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)
TBX3 c.820_827dupCCCGAAAC	0.0 (-39.0 to 39.0)	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)
TCF3 c.737C>T	-16.7 (-56.4 to 28.9)	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)



TERT c.215G>A	16.7 (-28.9 to 56.4)	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)
TGFR2 c.530-4T>A	0.0 (-39.0 to 39.0)	999999 (999999 to 999999)	0.0 (-39.0 to 39.0)	999999 (999999 to 999999)
TP53 c.215C>G	0.0 (-39.0 to 39.0)	0.0 (-56.1 to 56.1)	0.0 (-39.0 to 39.0)	0.0 (-65.8 to 65.8)
TP53 c.388delC	0.0 (-39.0 to 39.0)	0.0 (-56.1 to 56.1)	999999 (999999 to 999999)	999999 (999999 to 999999)
TP53 c.782+1G>A	0.0 (-39.0 to 39.0)	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)
TUSC3 c.99_101delGCT	-16.7 (-56.4 to 28.9)	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)
ZFX3 c.10931G>T	-16.7 (-56.4 to 28.9)	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)
ZFX3 c.1135C>G	16.7 (-28.9 to 56.4)	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)
ZFX3 c.1631C>T	-16.7 (-56.4 to 28.9)	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)
ZFX3 c.2833T>G	-16.7 (-56.4 to 28.9)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
ALK c.1043C>A	999999 (999999 to 999999)	999999 (999999 to 999999)	16.7 (-28.9 to 56.4)	999999 (999999 to 999999)
APLN c.349G>A	999999 (999999 to 999999)	999999 (999999 to 999999)	0.0 (-39.0 to 39.0)	999999 (999999 to 999999)
CARD11 c.988G>A	999999 (999999 to 999999)	999999 (999999 to 999999)	0.0 (-39.0 to 39.0)	999999 (999999 to 999999)
CHD4 c.4060G>C	999999 (999999 to 999999)	999999 (999999 to 999999)	-16.7 (-56.4 to 28.9)	0.0 (-65.8 to 65.8)
EGFR c.1008G>A	999999 (999999 to 999999)	999999 (999999 to 999999)	0.0 (-39.0 to 39.0)	0.0 (-65.8 to 65.8)
EP300 c.6613A>C	999999 (999999 to 999999)	999999 (999999 to 999999)	-16.7 (-56.4 to 28.9)	999999 (999999 to 999999)
ERCC6 c.3661C>T	999999 (999999 to 999999)	999999 (999999 to 999999)	-16.7 (-56.4 to 28.9)	999999 (999999 to 999999)
ERG c.1455_1461delCTACTAA	999999 (999999 to 999999)	999999 (999999 to 999999)	-16.7 (-56.4 to 28.9)	999999 (999999 to 999999)
EZH2 c.848C>T	999999 (999999 to 999999)	999999 (999999 to 999999)	0.0 (-39.0 to 39.0)	999999 (999999 to 999999)
FBXO11 c.164_169delAGCAGC	999999 (999999 to 999999)	999999 (999999 to 999999)	16.7 (-28.9 to 56.4)	999999 (999999 to 999999)
FLT4 c.2405G>T	999999 (999999 to 999999)	999999 (999999 to 999999)	-16.7 (-56.4 to 28.9)	999999 (999999 to 999999)
FOXO1 c.302C>T	999999 (999999 to 999999)	999999 (999999 to 999999)	16.7 (-28.9 to 56.4)	999999 (999999 to 999999)

GNAQ c.303C>A	999999 (999999 to 999999)	999999 (999999 to 999999)	-16.7 (-56.4 to 28.9)	999999 (999999 to 999999)
HOTS c.233_236delTACTinsCACC	999999 (999999 to 999999)	999999 (999999 to 999999)	16.7 (-28.9 to 56.4)	999999 (999999 to 999999)
IRS2 c.1242C>A	999999 (999999 to 999999)	999999 (999999 to 999999)	-16.7 (-56.4 to 28.9)	999999 (999999 to 999999)
KDM5C c.3019C>T	999999 (999999 to 999999)	999999 (999999 to 999999)	-16.7 (-56.4 to 28.9)	999999 (999999 to 999999)
KIT c.597delA	999999 (999999 to 999999)	999999 (999999 to 999999)	-16.7 (-56.4 to 28.9)	999999 (999999 to 999999)
KMT2A c.9400C>T	999999 (999999 to 999999)	999999 (999999 to 999999)	16.7 (-28.9 to 56.4)	999999 (999999 to 999999)
KMT2B c.26G>A	999999 (999999 to 999999)	999999 (999999 to 999999)	-16.7 (-56.4 to 28.9)	999999 (999999 to 999999)
KMT2C c.4845G>A	999999 (999999 to 999999)	999999 (999999 to 999999)	16.7 (-28.9 to 56.4)	50.0 (-48.6 to 90.5)
LRP1B c.4439G>A	999999 (999999 to 999999)	999999 (999999 to 999999)	0.0 (-39.0 to 39.0)	999999 (999999 to 999999)
MAGEA10 c.1021G>T	999999 (999999 to 999999)	999999 (999999 to 999999)	-16.7 (-56.4 to 28.9)	999999 (999999 to 999999)
MAP3K1 c.4292A>T	999999 (999999 to 999999)	999999 (999999 to 999999)	0.0 (-39.0 to 39.0)	999999 (999999 to 999999)
MET c.2318C>T	999999 (999999 to 999999)	999999 (999999 to 999999)	0.0 (-39.0 to 39.0)	999999 (999999 to 999999)
MSH6 c.1186C>G	999999 (999999 to 999999)	999999 (999999 to 999999)	0.0 (-39.0 to 39.0)	999999 (999999 to 999999)
MSH6 c.1486T>G	999999 (999999 to 999999)	999999 (999999 to 999999)	0.0 (-39.0 to 39.0)	999999 (999999 to 999999)
MUTYH c.64G>A	999999 (999999 to 999999)	999999 (999999 to 999999)	0.0 (-39.0 to 39.0)	0.0 (-65.8 to 65.8)
MYH11 c.5819dupC	999999 (999999 to 999999)	999999 (999999 to 999999)	16.7 (-28.9 to 56.4)	999999 (999999 to 999999)
NF1 c.1082G>C	999999 (999999 to 999999)	999999 (999999 to 999999)	0.0 (-39.0 to 39.0)	999999 (999999 to 999999)
NOTCH2 c.17_18delCC	999999 (999999 to 999999)	999999 (999999 to 999999)	-16.7 (-56.4 to 28.9)	999999 (999999 to 999999)
NTRK3 c.137G>C	999999 (999999 to 999999)	999999 (999999 to 999999)	16.7 (-28.9 to 56.4)	999999 (999999 to 999999)
PALB2 c.2993G>A	999999 (999999 to 999999)	999999 (999999 to 999999)	0.0 (-39.0 to 39.0)	0.0 (-65.8 to 65.8)
PALLD c.270_275dupCCCGCC	999999 (999999 to 999999)	999999 (999999 to 999999)	-16.7 (-56.4 to 28.9)	999999 (999999 to 999999)

PAX8 c.352G>A	999999 (999999 to 999999)	999999 (999999 to 999999)	-16.7 (-56.4 to 28.9)	999999 (999999 to 999999)
PDGFRB c.1543G>C	999999 (999999 to 999999)	999999 (999999 to 999999)	-16.7 (-56.4 to 28.9)	-50.0 (-90.5 to 48.6)
PIK3R1 c.1690A>G	999999 (999999 to 999999)	999999 (999999 to 999999)	16.7 (-28.9 to 56.4)	999999 (999999 to 999999)
PIK3R1 c.935delC	999999 (999999 to 999999)	999999 (999999 to 999999)	-16.7 (-56.4 to 28.9)	999999 (999999 to 999999)
PIK3R2 c.2047T>G	999999 (999999 to 999999)	999999 (999999 to 999999)	16.7 (-28.9 to 56.4)	0.0 (-65.8 to 65.8)
PLCG1 c.1825C>T	999999 (999999 to 999999)	999999 (999999 to 999999)	16.7 (-28.9 to 56.4)	999999 (999999 to 999999)
PLCG2 c.2114G>A	999999 (999999 to 999999)	999999 (999999 to 999999)	0.0 (-39.0 to 39.0)	0.0 (-65.8 to 65.8)
PMS2 c.1789A>T	999999 (999999 to 999999)	999999 (999999 to 999999)	0.0 (-39.0 to 39.0)	999999 (999999 to 999999)
PMS2 c.706-4delT	999999 (999999 to 999999)	999999 (999999 to 999999)	16.7 (-28.9 to 56.4)	999999 (999999 to 999999)
PTEN c.900delC	999999 (999999 to 999999)	999999 (999999 to 999999)	-16.7 (-56.4 to 28.9)	999999 (999999 to 999999)
PTPRD c.2069A>G	999999 (999999 to 999999)	999999 (999999 to 999999)	0.0 (-39.0 to 39.0)	999999 (999999 to 999999)
RB1 c.1466G>A	999999 (999999 to 999999)	999999 (999999 to 999999)	16.7 (-28.9 to 56.4)	50.0 (-48.6 to 90.5)
RNF139 c.135C>G	999999 (999999 to 999999)	999999 (999999 to 999999)	-16.7 (-56.4 to 28.9)	999999 (999999 to 999999)
ROS1 c.3416A>G	999999 (999999 to 999999)	999999 (999999 to 999999)	16.7 (-28.9 to 56.4)	50.0 (-48.6 to 90.5)
SPOP c.260A>G	999999 (999999 to 999999)	999999 (999999 to 999999)	0.0 (-39.0 to 39.0)	999999 (999999 to 999999)
SYNE1 c.25403G>A	999999 (999999 to 999999)	999999 (999999 to 999999)	0.0 (-39.0 to 39.0)	999999 (999999 to 999999)
TCF3 c.1643G>A	999999 (999999 to 999999)	999999 (999999 to 999999)	-16.7 (-56.4 to 28.9)	999999 (999999 to 999999)
TEP1 c.3649C>T	999999 (999999 to 999999)	999999 (999999 to 999999)	0.0 (-39.0 to 39.0)	999999 (999999 to 999999)
TP53 c.993G>T	999999 (999999 to 999999)	999999 (999999 to 999999)	-16.7 (-56.4 to 28.9)	999999 (999999 to 999999)
TP53 c.994-2A>G	999999 (999999 to 999999)	999999 (999999 to 999999)	16.7 (-28.9 to 56.4)	999999 (999999 to 999999)
U2AF1 c.101C>T	999999 (999999 to 999999)	999999 (999999 to 999999)	-16.7 (-56.4 to 28.9)	999999 (999999 to 999999)

ZFHX3 c.11065A>G	999999 (999999 to 999999)	999999 (999999 to 999999)	16.7 (-28.9 to 56.4)	999999 (999999 to 999999)
AATK c.65C>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
ABCC9 c.4535C>T	999999 (999999 to 999999)	0.0 (-56.1 to 56.1)	999999 (999999 to 999999)	999999 (999999 to 999999)
ACADS c.989G>A	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
ACAP3 c.1990C>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
ACSL4 c.106G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
ADAMTS13 c.3287G>A	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
ADAMTS7 c.227G>A	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
ADCY5 c.778C>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
ADGRE2 c.934C>A	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
ADGRE3 c.1411G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
ADGRF2 c.680C>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
ADGRG3 c.1394C>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
ADH4 c.1174delA	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
AEBP1 c.799G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
AGFG2 c.340C>A	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
AGPAT4 c.853C>T	999999 (999999 to 999999)	0.0 (-56.1 to 56.1)	999999 (999999 to 999999)	999999 (999999 to 999999)
AGRN c.184C>A	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
AGRN c.3157G>C	999999 (999999 to 999999)	0.0 (-56.1 to 56.1)	999999 (999999 to 999999)	999999 (999999 to 999999)
AHNAK2 c.13479G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
AHNAK2 c.9650T>C	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)

AKNA c.3907T>C	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
ALS2CL c.14A>G	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
ANKRD61 c.323C>G	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
ANKS1A c.157_159delGGC	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
ANKS1B c.2548C>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
ANTXR1 c.1121A>C	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
ANTXR2 c.940G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
APC2 c.1312C>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
APLP1 c.1243C>T	999999 (999999 to 999999)	0.0 (-56.1 to 56.1)	999999 (999999 to 999999)	999999 (999999 to 999999)
ARF6 c.352_354delCTC	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
ARHGAP6 c.1585G>C	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
ARHGEF1 c.2031_2033delGCT	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
ARHGEF19 c.1379C>T	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
ARHGEF7 c.2072G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
ARL10 c.53C>T	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
ARL6IP4 c.902_904delAGA	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
ARRDC4 c.227C>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
ARSI c.312G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
ASCC3 c.5962A>G	999999 (999999 to 999999)	0.0 (-56.1 to 56.1)	999999 (999999 to 999999)	999999 (999999 to 999999)
ASH1L c.8522G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
ASPRV1 c.985G>T	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)

ATM c.3403-4dupT	999999 (999999 to 999999)	0.0 (-56.1 to 56.1)	999999 (999999 to 999999)	0.0 (-65.8 to 65.8)
ATP13A2 c.2984C>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
ATP2C2 c.2192delA	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
ATP6AP1 c.508A>C	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
ATP7A c.3388C>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
ATRN c.263_268delCGGCGG	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
B3GLCT c.517G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
B4GALNT2 c.1414G>A	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
B4GALT7 c.431T>C	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
BEGAIN c.1231G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
BEST1 c.273C>G	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
BET1 c.327dupT	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
BNC1 c.86G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
BOC c.896G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
BPIFB4 c.1146G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
BRPF1 c.3069C>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
BRPF1 c.823G>C	999999 (999999 to 999999)	0.0 (-56.1 to 56.1)	999999 (999999 to 999999)	999999 (999999 to 999999)
BRWD3 c.3188G>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
BTBD17 c.106G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
C10orf88 c.401dupA	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
C16orf47 c.329G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)

C16orf95 c.407G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
C17orf100 c.71C>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
C17orf105 c.97G>A	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
C1QL4 c.185G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
C1orf122 c.17G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
C1orf168 c.2134G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
C3 c.3566_3567delTG	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
C5orf60 c.770G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
C7orf31 c.931A>G	999999 (999999 to 999999)	0.0 (-56.1 to 56.1)	999999 (999999 to 999999)	999999 (999999 to 999999)
CACNA1C c.169G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
CACNA1D c.26_28delAAA	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
CACNA1D c.58C>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
CACNA1I c.2939G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
CACNA1S c.4718C>T	999999 (999999 to 999999)	0.0 (-56.1 to 56.1)	999999 (999999 to 999999)	999999 (999999 to 999999)
CAD c.1429G>T	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
CADPS c.1595G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
CAPS2 c.158C>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
CARS2 c.1419C>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
CATSPERE c.2471A>C	999999 (999999 to 999999)	0.0 (-56.1 to 56.1)	999999 (999999 to 999999)	999999 (999999 to 999999)
CC2D1A c.1030C>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
CC2D2B c.312G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)

CCDC105 c.895G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
CCDC114 c.445G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
CCDC142 c.1220G>A	999999 (999999 to 999999)	0.0 (-56.1 to 56.1)	999999 (999999 to 999999)	999999 (999999 to 999999)
CCDC168 c.17281G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
CCDC22 c.442C>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
CCDC39 c.1189C>G	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
CCDC47 c.21C>A	999999 (999999 to 999999)	0.0 (-56.1 to 56.1)	999999 (999999 to 999999)	999999 (999999 to 999999)
CCDC70 c.239G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
CCDC73 c.896C>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
CCDC8 c.316G>A	999999 (999999 to 999999)	0.0 (-56.1 to 56.1)	999999 (999999 to 999999)	999999 (999999 to 999999)
CCDC91 c.1163C>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
CCP110 c.2504G>T	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
CD3G c.497G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
CD80 c.832G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
CD9 c.85C>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
CDC25A c.1517G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
CDH13 c.1498G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
CDH23 c.691G>C	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
CDK18 c.1073G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
CDKN2A c.23G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
CDX4 c.455G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)



CEBPZ c.2155T>A	999999 (999999 to 999999)	0.0 (-56.1 to 56.1)	999999 (999999 to 999999)	999999 (999999 to 999999)
CELSR3 c.5802delC	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
CELSR3 c.9748C>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
CENPE c.2797G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
CENPE c.4270C>T	999999 (999999 to 999999)	0.0 (-56.1 to 56.1)	999999 (999999 to 999999)	999999 (999999 to 999999)
CENPV c.596C>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
CEP170B c.1955T>C	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
CEP170B c.3520C>G	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
CEP250 c.589G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
CFAP157 c.1441C>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
CFHR4 c.996C>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
CGB3 c.427G>T	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
CHADL c.868C>A	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
CHCHD10 c.227G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
CHD2 c.2366G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
CHD3 c.1796G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
CHD3 c.3880G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
CHPF c.2009A>T	999999 (999999 to 999999)	0.0 (-56.1 to 56.1)	999999 (999999 to 999999)	999999 (999999 to 999999)
CHRNA5 c.1192G>A	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
CHST13 c.716G>A	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
CIZ1 c.626G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)

CLCN6 c.698G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
CLCNKA c.476G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
CLDN15 c.301C>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
CLEC3A c.547G>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
CLEC4F c.839G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
CLIP4 c.890G>C	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
CLSPN c.533G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
CLTA c.698G>A	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
CLUH c.2743G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
CMBL c.460G>A	999999 (999999 to 999999)	0.0 (-56.1 to 56.1)	999999 (999999 to 999999)	999999 (999999 to 999999)
CNR1 c.982C>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
CNTD2 c.164C>T	999999 (999999 to 999999)	0.0 (-56.1 to 56.1)	999999 (999999 to 999999)	999999 (999999 to 999999)
COL11A2 c.3100C>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
COL1A1 c.3680G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
COL22A1 c.3584G>T	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
COL22A1 c.379C>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
COL27A1 c.2295C>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
COL4A1 c.3263G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
COL6A2 c.1267C>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
COL6A5 c.5543G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
CRB2 c.2873G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)

CREB3L1 c.1267C>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
CRH c.445G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
CRYBG2 c.1418_1419ins	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
CSMD1 c.1090G>A	999999 (999999 to 999999)	0.0 (-56.1 to 56.1)	999999 (999999 to 999999)	999999 (999999 to 999999)
CST9 c.289C>T	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
CT55 c.331A>T	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
CTAGE4 c.1963A>G	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
CTBP1 c.1130C>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
CTH c.589C>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
CTNNB1 c.1517T>A	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
CTTNBP2 c.3100G>A	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
CX3CL1 c.1130C>T	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
CXCR3 c.386G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
CYBA c.437G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
CYBB c.1461G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
CYGB c.406G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
CYP2F1 c.1028G>A	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
DAAM1 c.1015C>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
DAB2 c.2173C>A	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
DACH1 c.1726C>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
DALRD3 c.896A>G	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)

DDIAS c.2524G>A	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
DEF8 c.1414G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
DEFB121 c.154G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
DENND1A c.1343G>T	999999 (999999 to 999999)	0.0 (-56.1 to 56.1)	999999 (999999 to 999999)	999999 (999999 to 999999)
DENND2C c.794G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
DENND4A c.311G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
DFFB c.379G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
DGAT1 c.458G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
DGKI c.40C>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
DHRX c.721G>A	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
DNAH10 c.3640G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
DNAH9 c.1243C>A	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
DNAH9 c.6584A>G	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
DOCK1 c.5259G>A	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
DOCK11 c.307G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
DOCK2 c.543C>G	999999 (999999 to 999999)	0.0 (-56.1 to 56.1)	999999 (999999 to 999999)	999999 (999999 to 999999)
DOCK3 c.2086G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
DOCK4 c.5740G>A	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
DOCK8 c.1205C>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
DRAM2 c.133G>T	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
EBPL c.20T>C	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)

ECT2 c.619C>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
EFHC2 c.679G>C	999999 (999999 to 999999)	0.0 (-56.1 to 56.1)	999999 (999999 to 999999)	999999 (999999 to 999999)
EFHD1 c.88G>T	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
ELMSAN1 c.939dupC	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
ELOA2 c.1207G>T	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
ENC1 c.206G>A	999999 (999999 to 999999)	0.0 (-56.1 to 56.1)	999999 (999999 to 999999)	999999 (999999 to 999999)
ENDOG c.142G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
ERFE c.467C>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
ESX1 c.959_985delCTGTGCCACCCGGGCCGCC CATGGCGC	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
EVC c.1168C>A	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
EVC2 c.2095A>G	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
EVI5 c.1213T>A	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
F8 c.3380G>A	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
FAAP100 c.22G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
FAM135B c.2615G>T	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
FAM160B2 c.305delC	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
FAM161B c.932G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
FAM192A c.634C>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
FAM210B c.245A>G	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
FAM212A c.216_218delGGA	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
FAM219A c.499G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)

FAM220A c.266C>T	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
FAM50B c.307C>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
FAM86B2 c.892+5A>G	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
FAM89A c.110C>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
FANCA c.4232C>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
FASN c.4447G>A	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
FASTKD3 c.20G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
FBXO3 c.7G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
FBXO33 c.101_109delAGCTGCGAC	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
FBXW10 c.1573G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
FBXW12 c.174A>C	999999 (999999 to 999999)	0.0 (-56.1 to 56.1)	999999 (999999 to 999999)	999999 (999999 to 999999)
FBXW9 c.209G>A	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
FCF1 c.589C>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
FDX1L c.494C>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
FIGNL2 c.856G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
FIP1L1 c.1180C>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
FKBP15 c.3637G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
FLG c.5378G>A	999999 (999999 to 999999)	0.0 (-56.1 to 56.1)	999999 (999999 to 999999)	999999 (999999 to 999999)
FLII c.668G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
FLNA c.6100C>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
FMR1 c.1544G>A	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)

FOXD4 c.748_749delGGinsC	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
FOXN4 c.455delC	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
FOXO4 c.574C>T	999999 (999999 to 999999)	0.0 (-56.1 to 56.1)	999999 (999999 to 999999)	999999 (999999 to 999999)
FRAS1 c.5732A>G	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
FRS3 c.1336_1344delACCCACCCTinsCCCCCCC	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
FSCN2 c.853G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
FSIP2 c.18617_18618delTA	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
FSTL1 c.755G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
FUT7 c.49G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
GAREM1 c.1673G>A	999999 (999999 to 999999)	0.0 (-56.1 to 56.1)	999999 (999999 to 999999)	999999 (999999 to 999999)
GATAD2B c.1704G>T	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
GGCT c.206C>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
GGT5 c.1334C>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
GGT7 c.1093G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
GJA9 c.595G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
GLI2 c.4672G>A	999999 (999999 to 999999)	0.0 (-56.1 to 56.1)	999999 (999999 to 999999)	999999 (999999 to 999999)
GLRA4 c.440C>T	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
GLT8D2 c.278G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
GMPPB c.887G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
GNB1 c.983C>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
GOLGA2 c.1483C>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)

GOLGA8K c.1702G>A	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	0.0 (-65.8 to 65.8)
GOLGA8K c.962A>C	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
GOLIM4 c.949C>T	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
GOLM1 c.179G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
GP9 c.131C>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
GPC1 c.1030G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
GPR149 c.1041C>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
GPR155 c.1384G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
GPR50 c.514G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
GPR52 c.18G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
GPR6 c.715C>T	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
GPR83 c.321C>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
GPR88 c.568G>A	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
GRIA1 c.2318C>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
GRIA3 c.1913G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
GRIA3 c.2431G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
GRK7 c.1027G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
GRK7 c.146G>A	999999 (999999 to 999999)	0.0 (-56.1 to 56.1)	999999 (999999 to 999999)	999999 (999999 to 999999)
GRN c.266C>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
GSE1 c.1201G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
GSG2 c.611G>A	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)



GTPBP1 c.1339C>T	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
GUCY2D c.2035G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
GYG2 c.910C>T	999999 (999999 to 999999)	0.0 (-56.1 to 56.1)	999999 (999999 to 999999)	999999 (999999 to 999999)
HCFC1 c.4873G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
HCN1 c.808C>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
HDDC2 c.385G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
HDLBP c.1417C>T	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
HEPHL1 c.3193G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
HES2 c.13C>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
HGSNAT c.1622C>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
HINT3 c.10G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
HIP1 c.2956G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
HIST1H2AL c.186G>C	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
HIST2H3D c.19A>C	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
HJURP c.520G>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
HMGA2 c.275C>T	999999 (999999 to 999999)	0.0 (-56.1 to 56.1)	999999 (999999 to 999999)	999999 (999999 to 999999)
HNRNPUL2 c.206G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
HOXB9 c.232T>C	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
HOXD4 c.121G>A	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
HRG c.988G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
HUNK c.1708C>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)

HUWE1 c.11869C>A	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
HYAL3 c.428G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
HYDIN c.10541G>A	999999 (999999 to 999999)	0.0 (-56.1 to 56.1)	999999 (999999 to 999999)	999999 (999999 to 999999)
ICAM3 c.869G>A	999999 (999999 to 999999)	0.0 (-56.1 to 56.1)	999999 (999999 to 999999)	999999 (999999 to 999999)
IFI30 c.34C>T	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
IFNA10 c.178C>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
IFT81 c.1313G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
IGFN1 c.5179G>A	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
IGFN1 c.5683T>G	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	0.0 (-81.1 to 81.1)
IGFN1 c.5695G>A	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	0.0 (-81.1 to 81.1)
IGSF9B c.932G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
IL12RB1 c.1097C>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
IL6ST c.1165G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
ILF3 c.1480G>A	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
INA c.41_43delCCT	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
ING1 c.361C>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
INTS9 c.1412G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
IQCH c.310C>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
IQGAP2 c.4025G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
IQSEC3 c.1468G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
ISM2 c.701C>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)

ITGA1 c.3334G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
ITGA9 c.1040C>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
ITGA9 c.433C>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
ITGAE c.1350_1352delGGC	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
ITIH5 c.2035C>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
ITLN2 c.176G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
ITPK1 c.625G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
JMJD7 c.889G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
JPH3 c.1412C>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
JPH3 c.1688G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
JSRP1 c.548C>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
KANK3 c.304G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
KATNA1 c.443G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
KCNAB3 c.689G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
KCNE5 c.370C>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
KCNG1 c.1226C>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
KCNN4 c.264G>T	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
KCNQ4 c.2041G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
KDM2A c.1939G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
KDM6A c.3068G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
KIAA0586 c.397C>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)

KIAA1109 c.3686C>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
KIAA1324 c.1453G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
KIF13A c.517C>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
KIF13B c.5231G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
KIF17 c.1204G>A	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
KIF19 c.92C>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
KIF1B c.2119A>G	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
KIF1C c.2522C>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
KIF21B c.4303G>A	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
KIR2DS4 c.436A>T	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
KLK2 c.259G>A	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
KMT2A c.5755G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
KMT2B c.265G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
KNDC1 c.3065C>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
KRBA1 c.1058C>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
KRTAP17-1 c.125G>A	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
KRTAP17-1 c.140G>A	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
KSR1 c.254C>T	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
LAMA5 c.104C>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
LAMA5 c.7771C>G	999999 (999999 to 999999)	0.0 (-56.1 to 56.1)	999999 (999999 to 999999)	999999 (999999 to 999999)
LAMB2 c.2089C>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)

LCE3D c.221G>A	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
LDOC1 c.417C>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
LEMD3 c.1873C>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
LINC00452 c.718G>A	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
LIPN c.748A>G	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
LKAAEAR1 c.182G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
LMNA c.1634G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
LMNA c.356G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
LMTK3 c.1696G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
LOC100506388 c.217C>T	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
LOC441155 c.35dupT	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
LOC729159 c.1004_1005delTGinsCA	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
LPAR2 c.733A>G	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
LRP1 c.4006G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
LRRC32 c.1573C>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
LRRC56 c.899G>A	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
LRRC59 c.510G>C	999999 (999999 to 999999)	0.0 (-56.1 to 56.1)	999999 (999999 to 999999)	999999 (999999 to 999999)
LRRC8D c.914A>G	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
LRRN4 c.421A>G	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
LRRN4 c.442C>T	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
LYST c.7192G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)

LZTR1 c.1892G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
MAD2L2 c.76G>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
MADD c.2251G>A	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
MAEL c.329T>C	999999 (999999 to 999999)	0.0 (-56.1 to 56.1)	999999 (999999 to 999999)	999999 (999999 to 999999)
MAGEA10 c.145C>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
MAGEA5 c.181C>T	999999 (999999 to 999999)	0.0 (-56.1 to 56.1)	999999 (999999 to 999999)	999999 (999999 to 999999)
MAGEL2 c.2626G>A	999999 (999999 to 999999)	0.0 (-56.1 to 56.1)	999999 (999999 to 999999)	999999 (999999 to 999999)
MAN2A1 c.1916dupA	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
MANEA c.1096C>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
MAP7D1 c.2182A>G	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
MARCH1 c.11G>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
MARCH2 c.275G>T	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
MAT1A c.280G>C	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
MCCC1 c.667G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
MCM6 c.1693C>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
MED12L c.5813C>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
MED23 c.2836C>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
MIB2 c.208C>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
MIER2 c.1453A>G	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
MIGA2 c.508G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
MIPEP c.1678C>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)

MLIP c.1145C>A	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
MMAB c.733G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
MMP16 c.391C>T	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
MMP24 c.119_121delTGC	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
MNT c.362C>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
MOV10L1 c.2459A>G	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
MRE11 c.1532delA	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
MRGPRES c.47G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
MRGPRX4 c.69C>G	999999 (999999 to 999999)	0.0 (-56.1 to 56.1)	999999 (999999 to 999999)	999999 (999999 to 999999)
MROH8 c.598G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
MST1R c.931delG	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
MTRNR2L3 c.2T>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
MUC12 c.9229C>A	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
MUC16 c.1031G>A	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
MUC19 c.18689G>C	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
MUC4 c.7666G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
MUC4 c.8866G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
MUT c.1532G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
MYBPC2 c.3193G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
MYH13 c.1440C>G	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
MYH9 c.4049_4051delAGG	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)

MYLK3 c.1105C>A	999999 (999999 to 999999)	0.0 (-56.1 to 56.1)	999999 (999999 to 999999)	999999 (999999 to 999999)
MYO7A c.1091delC	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
NANOS1 c.517G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
NBPF8 c.1714C>G	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
NCAPG2 c.2617C>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
NCS1 c.250G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
NEO1 c.3193G>T	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
NFASC c.1747G>A	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
NISCH c.4270C>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
NKX2-5 c.211G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
NLGN4X c.166C>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
NLRP3 c.226G>A	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
NOC2L c.994G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
NOMO2 c.976G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
NOTCH1 c.1892A>G	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
NPHS1 c.3250delG	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
NPTX2 c.979C>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
NTRK2 c.2272G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
NUDT16 c.5C>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
NUDT7 c.259G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
NUDT9 c.480delG	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)



NUFIP1 c.1336G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
NUFIP1 c.415A>T	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
NUP210 c.1159C>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
OBSCN c.11180G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
OBSL1 c.4294C>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
OGDHL c.2591-11_2600delTGGTCCCTCAGGGACCAGCT T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
ONECUT2 c.751C>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
OPRM1 c.266C>T	999999 (999999 to 999999)	0.0 (-56.1 to 56.1)	999999 (999999 to 999999)	999999 (999999 to 999999)
OR8G5 c.716G>A	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
OSBPL2 c.543delC	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
OVOL1 c.755C>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
PACS2 c.2428G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
PADI2 c.95C>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
PALD1 c.1525G>T	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
PARD3 c.3457C>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
PARS2 c.599G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
PCCB c.372G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
PCDH9 c.3533C>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
PCDH9 c.923C>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
PCDHAC2 c.389C>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
PCDHB13 c.1966G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)

PCNX3 c.5516_5534delACTGTAGTGGGGGCGGT GG	999999 (999999 to 999999)	0.0 (-56.1 to 56.1)	999999 (999999 to 999999)	999999 (999999 to 999999)
PCSK4 c.328C>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
PCSK5 c.1543A>G	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
PDE12 c.806_807delTG	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
PDE1B c.1220C>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
PDE1C c.1733G>A	999999 (999999 to 999999)	0.0 (-56.1 to 56.1)	999999 (999999 to 999999)	999999 (999999 to 999999)
PDGFRA c.1365-4C>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
PDGFRA c.2645G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
PDGFRB c.2183+1G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
PDX1 c.172G>C	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
PDZRN3 c.2348C>T	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
PELP1 c.2285C>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
PGLYRP2 c.1711C>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
PHACTR1 c.1248G>A	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
PHACTR2 c.1429G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
PHF8 c.1499G>A	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
PHF8 c.2385C>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
PHLDB1 c.3146G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
PHLPP2 c.2843G>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
PHOX2B c.811C>G	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
PI4KA c.5701G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)

PID1 c.473C>G	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
PIDD1 c.992A>G	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
PIEZO1 c.3107G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
PIGG c.1087C>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
PIGG c.2061G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
PIN1 c.220C>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
PITPNC1 c.527G>T	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
PKHD1 c.5814G>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
PLCB1 c.2279G>A	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
PLEK2 c.458G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
PLEKHA5 c.1070C>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
PLEKHG1 c.2273G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
PLEKHM1 c.2174G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
PLK5 c.505C>T	999999 (999999 to 999999)	0.0 (-56.1 to 56.1)	999999 (999999 to 999999)	999999 (999999 to 999999)
PLXNB1 c.4699G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
PNPT1 c.1285-3_1288delAAGTTTCinsTTTTTTT	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
PODXL2 c.1217G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
POLR2A c.1492G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
POM121C c.1456A>T	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
POMT1 c.1648C>T	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
POTEF c.505C>A	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)

POU3F3 c.259G>A	999999 (999999 to 999999)	0.0 (-56.1 to 56.1)	999999 (999999 to 999999)	999999 (999999 to 999999)
PPEF1 c.735C>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
PRAMEF11 c.1144A>C	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
PREP c.815G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
PRR14L c.3470A>G	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
PRSS55 c.43G>A	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
PTPRS c.2192C>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
PTPRS c.2872C>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
QRICH2 c.3259G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
QSOX2 c.994C>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
R3HCC1 c.309-1G>A	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
RAB21 c.41_43delCGG	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
RAD50 c.1684G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
RAD54L2 c.1012A>G	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
RALGAPA2 c.1332G>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
RAPH1 c.1993G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
RASAL3 c.2062G>A	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
RASAL3 c.2155G>C	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
RASGRF2 c.123G>C	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
RASGRP4 c.1501G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
RB1 c.2359C>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)



RPL4 c.427C>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
RPS6KA2 c.1756G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
RPS6KB2 c.37G>A	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
RRBP1 c.2335G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
RTN1 c.1600C>A	999999 (999999 to 999999)	0.0 (-56.1 to 56.1)	999999 (999999 to 999999)	999999 (999999 to 999999)
RTP5 c.281G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
RUNDC1 c.337C>T	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
RXFP2 c.604C>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
SACS c.2488G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
SALL3 c.1837G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
SAMHD1 c.405_421delCATTGATACACCTCAAT	999999 (999999 to 999999)	0.0 (-56.1 to 56.1)	999999 (999999 to 999999)	999999 (999999 to 999999)
SAP30L c.193G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
SAPCD1 c.119G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
SBSN c.1583A>T	999999 (999999 to 999999)	0.0 (-56.1 to 56.1)	999999 (999999 to 999999)	999999 (999999 to 999999)
SCAP c.2892delC	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
SEC14L1 c.1129C>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
SEC14L4 c.287G>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
SEC24D c.907G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
SH2D3C c.898C>T	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
SIGLEC9 c.17_19delTGC	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
SIRPG c.1141G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)

SLC22A8 c.583G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
SLC26A4 c.575T>C	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
SLC2A5 c.964G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
SLC2A6 c.961G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
SLC2A8 c.576delC	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
SLC35F1 c.703G>A	999999 (999999 to 999999)	0.0 (-56.1 to 56.1)	999999 (999999 to 999999)	999999 (999999 to 999999)
SLC44A3 c.332A>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
SLC5A10 c.1211G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
SLC6A13 c.1341C>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
SLC8A1 c.2011A>T	999999 (999999 to 999999)	0.0 (-56.1 to 56.1)	999999 (999999 to 999999)	999999 (999999 to 999999)
SLC8A3 c.2374G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
SLIT3 c.182G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
SMARCA4 c.4185delA	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
SMARCAD1 c.1637G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
SOBP c.1950G>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
SOGA1 c.1477G>T	999999 (999999 to 999999)	0.0 (-56.1 to 56.1)	999999 (999999 to 999999)	999999 (999999 to 999999)
SOST c.278C>A	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
SOX18 c.698C>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
SP140 c.2167G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
SP8 c.326G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
SPATA31A6 c.1997A>G	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)

SPATA31E1 c.2987G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
SPINK2 c.118A>G	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
SPIRE2 c.470_472delAGG	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
SPOCD1 c.3199G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
SREBF2 c.85G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
SSC4D c.1154C>T	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
SSH2 c.2626G>C	999999 (999999 to 999999)	0.0 (-56.1 to 56.1)	999999 (999999 to 999999)	999999 (999999 to 999999)
SSPO c.13487A>G	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
SSPO c.1967G>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
SSTR1 c.121C>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
STAC3 c.226_227insGGG	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
STK26 c.1073C>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
STK33 c.1280G>C	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
STK38L c.148G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
STK40 c.1198G>A	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
STT3B c.957T>G	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
SUDS3 c.397_399delAAG	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
SUSD3 c.428C>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
SYCP2 c.4180C>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
SYN2 c.544G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
SYNE2 c.9263G>A	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)



TACC2 c.2488C>T	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
TACC2 c.3196G>A	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
TACC3 c.1847C>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
TAF1D c.281delA	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
TBL1X c.826C>T	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
TEKT4 c.824G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
TET1 c.5408G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
TEX264 c.875G>A	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
TFAP2E c.305C>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
TFRC c.1763G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
TGM4 c.937G>A	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
THEMIS2 c.1527_1531delITGTGAinsCGTGG	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
TIGD4 c.373G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
TLN1 c.7088C>T	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
TMC6 c.2054G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
TMCO6 c.464T>A	999999 (999999 to 999999)	0.0 (-56.1 to 56.1)	999999 (999999 to 999999)	999999 (999999 to 999999)
TMEM151A c.3G>A	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
TMEM165 c.703C>G	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
TMEM200B c.338G>T	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
TMEM232 c.1045G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
TMEM237 c.1159G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)

TMEM59L c.800G>A	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
TMEM63C c.2128C>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
TMEM70 c.113G>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
TMEM94 c.859G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
TNFSF18 c.355A>G	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
TNRC18 c.3076A>C	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
TNRC6B c.4934G>A	999999 (999999 to 999999)	0.0 (-56.1 to 56.1)	999999 (999999 to 999999)	999999 (999999 to 999999)
TOGARAM1 c.2390A>C	999999 (999999 to 999999)	0.0 (-56.1 to 56.1)	999999 (999999 to 999999)	999999 (999999 to 999999)
TOP2B c.1057C>G	999999 (999999 to 999999)	0.0 (-56.1 to 56.1)	999999 (999999 to 999999)	999999 (999999 to 999999)
TOP2B c.247G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
TPR c.583A>G	999999 (999999 to 999999)	0.0 (-56.1 to 56.1)	999999 (999999 to 999999)	999999 (999999 to 999999)
TRDN c.1900G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
TRIM61 c.365C>G	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
TRIM64B c.377delG	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
TRPV1 c.1753A>G	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
TSEN2 c.247C>G	999999 (999999 to 999999)	0.0 (-56.1 to 56.1)	999999 (999999 to 999999)	999999 (999999 to 999999)
TSEN2 c.451G>A	999999 (999999 to 999999)	0.0 (-56.1 to 56.1)	999999 (999999 to 999999)	999999 (999999 to 999999)
TSEN2 c.506G>A	999999 (999999 to 999999)	0.0 (-56.1 to 56.1)	999999 (999999 to 999999)	999999 (999999 to 999999)
TTK c.1324_1327delTCTA	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
TTN c.68658G>C	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
TTN c.68716C>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)

TTPA c.103G>A	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
TULP4 c.4571C>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
TXNRD2 c.1522C>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
UBASH3B c.32G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
UBE4A c.2306G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
USP32 c.2804G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
USPL1 c.3256G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
VGLL2 c.794C>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
WDFY3 c.1262T>C	999999 (999999 to 999999)	0.0 (-56.1 to 56.1)	999999 (999999 to 999999)	999999 (999999 to 999999)
WDR18 c.1075C>A	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
XKR4 c.1918A>T	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
XPO4 c.238C>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
XPO7 c.2398C>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
ZAR1 c.1145C>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
ZC3H12B c.2285G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
ZC3H12D c.1213C>T	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
ZC3H7B c.1569C>G	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
ZC3H8 c.220G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
ZDBF2 c.5228C>T	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
ZMPSTE24 c.1085dupT	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
ZMYM1 c.1965G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)

ZMYM5 c.74C>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
ZMYND15 c.1468G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
ZNF10 c.1658C>T	999999 (999999 to 999999)	0.0 (-56.1 to 56.1)	999999 (999999 to 999999)	999999 (999999 to 999999)
ZNF207 c.673A>G	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
ZNF208 c.766T>C	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
ZNF276 c.548C>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
ZNF365 c.307G>A	999999 (999999 to 999999)	0.0 (-56.1 to 56.1)	999999 (999999 to 999999)	999999 (999999 to 999999)
ZNF367 c.854G>A	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
ZNF37A c.1369C>T	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
ZNF383 c.820C>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
ZNF420 c.34G>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
ZNF431 c.1260G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
ZNF431 c.1462G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
ZNF431 c.1525G>C	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
ZNF474 c.757C>T	999999 (999999 to 999999)	0.0 (-56.1 to 56.1)	999999 (999999 to 999999)	999999 (999999 to 999999)
ZNF493 c.802G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
ZNF536 c.3551A>C	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
ZNF568 c.1066C>A	999999 (999999 to 999999)	0.0 (-56.1 to 56.1)	999999 (999999 to 999999)	999999 (999999 to 999999)
ZNF680 c.1016A>G	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
ZNF696 c.430C>T	999999 (999999 to 999999)	33.3 (-41.5 to 79.2)	999999 (999999 to 999999)	999999 (999999 to 999999)
ZNF782 c.1630G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)

ZNFX1 c.1982C>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
ZP1 c.1103G>A	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
ZYX c.697C>T	999999 (999999 to 999999)	-33.3 (-79.2 to 41.5)	999999 (999999 to 999999)	999999 (999999 to 999999)
ABCA5 c.725_727delCAGinsAAA	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	50.0 (-48.6 to 90.5)
ACSF3 c.1180C>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
ADAMTS2 c.2243C>T	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
ADCK2 c.253C>T	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	0.0 (-65.8 to 65.8)
ADGRA1 c.227G>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
ADGRF3 c.1615G>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
ADGRG2 c.1314C>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
ADGRV1 c.16006C>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
AFAP1 c.140A>G	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
AHNAK c.14273A>G	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	0.0 (-65.8 to 65.8)
AHRR c.1881C>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	0.0 (-65.8 to 65.8)
AKAP13 c.5222C>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
AKR1B15 c.452delT	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
ALS2CR12 c.1079C>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
ALX3 c.226G>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
AMOTL2 c.2426G>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
ANK3 c.9349dupA	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
ANKRD33 c.112G>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)

ANXA10 c.655G>T	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
AP4B1 c.1657G>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	50.0 (-48.6 to 90.5)
APPBP2 c.863C>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	50.0 (-48.6 to 90.5)
ARHGAP6 c.1393G>C	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	0.0 (-65.8 to 65.8)
ARID1A c.492_494delCGC	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
ARMC12 c.829G>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	0.0 (-65.8 to 65.8)
ARSE c.1750C>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
ATM c.458G>T	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
ATM c.6889C>G	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
ATP10D c.545G>T	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
ATXN3 c.911_912insACAGCAGCAGCAGCAGCAG CAGCA	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
ATXN7 c.59_61delCGG	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	50.0 (-48.6 to 90.5)
BCR c.3055G>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
BRIX1 c.494T>C	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
BTG2 c.17G>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	50.0 (-48.6 to 90.5)
C10orf76 c.1715T>C	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	0.0 (-65.8 to 65.8)
C10orf82 c.343G>T	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
C10orf95 c.581G>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
C12orf56 c.989A>G	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
C16orf86 c.922C>T	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
C3 c.641C>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)

CACFD1 c.665_668delCCCT	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
CAMKK2 c.1599_1601delGACinsAACAAAA	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	50.0 (-48.6 to 90.5)
CAPN13 c.1888A>G	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
CASKIN2 c.3538A>G	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
CASQ2 c.51C>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
CCDC106 c.138G>T	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
CCDC114 c.601A>G	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	50.0 (-48.6 to 90.5)
CCDC144A c.1001C>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
CCDC168 c.15025G>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
CCDC25 c.137C>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
CCDC93 c.1321G>T	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
CCNI2 c.460G>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	0.0 (-65.8 to 65.8)
CCNL2 c.532A>G	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	0.0 (-65.8 to 65.8)
CCT3 c.591delA	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
CD1B c.418G>T	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
CD7 c.44C>G	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
CDH17 c.1315G>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
CDK6 c.631G>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
CECR2 c.3651_3655dupAACCC	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	0.0 (-65.8 to 65.8)
CELSR1 c.5418G>T	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
CEP128 c.3073G>T	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)

CEP290 c.5517G>T	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
CEP85L c.11G>T	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
CFAP36 c.685G>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
CFAP53 c.984_988delGAAACinsAAAAA	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	50.0 (-48.6 to 90.5)
CFAP65 c.2247G>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
CFAP97 c.481delA	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
CGB3 c.16-2A>T	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	50.0 (-48.6 to 90.5)
CHEK2 c.1409A>G	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
CIZ1 c.346C>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
CLCN1 c.2435_2445delAGCCTGTCTGT	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	50.0 (-48.6 to 90.5)
CLCN3 c.1469G>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
CLDN19 c.503G>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
CLEC18C c.299T>C	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
CLN5 c.272C>T	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
CLPTM1L c.1295T>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	0.0 (-65.8 to 65.8)
CNOT1 c.4630_4635delCTGTTAinsTTTTTT	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
CNTN6 c.2759G>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
COL11A2 c.2102C>T	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
COL19A1 c.1703G>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
COL27A1 c.1908G>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	50.0 (-48.6 to 90.5)
CP c.2291C>T	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)



CPB2 c.340delC	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	50.0 (-48.6 to 90.5)
CRYBG3 c.4646C>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	0.0 (-65.8 to 65.8)
CXCL6 c.86C>T	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
CXorf36 c.587G>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
CYP11B2 c.1471C>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
DCC c.601C>T	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	50.0 (-48.6 to 90.5)
DEPDC1B c.682G>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	0.0 (-65.8 to 65.8)
DHRS2 c.287A>T	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	0.0 (-65.8 to 65.8)
DHX29 c.3296C>A	999999 (999999 to 999999)	999999 (999999 to 999999999999 )	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
DLG5 c.2296G>T	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
DNAAF3 c.976G>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	0.0 (-65.8 to 65.8)
DNAH9 c.6762G>T	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
DOLPP1 c.500A>T	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
DSC2 c.934G>T	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	0.0 (-65.8 to 65.8)
DST c.4384G>T	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	0.0 (-65.8 to 65.8)
EML5 c.824G>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	0.0 (-65.8 to 65.8)
ENAM c.869G>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
ENO4 c.1751A>T	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	50.0 (-48.6 to 90.5)
ENPEP c.1552G>T	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
EOGT c.419C>T	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
EPG5 c.6263T>G	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)

EREG c.143G>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	0.0 (-65.8 to 65.8)
ESRP2 c.381G>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
EXOSC10 c.1751C>T	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	50.0 (-48.6 to 90.5)
F13A1 c.1909-883_2038dup	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
F2RL1 c.280G>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
FAM186A c.4757_4828del	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	50.0 (-48.6 to 90.5)
FAM193A c.1769C>T	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
FAM90A1 c.1261G>T	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	50.0 (-48.6 to 90.5)
FAM9B c.285G>T	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
FANCI c.153C>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
FARSB c.1177C>T	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	50.0 (-48.6 to 90.5)
FAT1 c.10630G>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
FBL c.407C>T	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
FGF10 c.365C>T	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
FIG4 c.2347G>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	50.0 (-48.6 to 90.5)
FIG4 c.2586A>T	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	0.0 (-65.8 to 65.8)
FNTA c.408C>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
FOXRED1 c.104C>T	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
FOXRED1 c.65G>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
FXR2 c.994A>G	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
GAB3 c.1307C>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)

GAGE2A c.175C>G	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	50.0 (-48.6 to 90.5)
GALR2 c.646C>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
GDF7 c.955C>T	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
GFRA1 c.665C>T	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
GGT1 c.1081G>C	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
GHR c.1705C>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
GIPR c.301C>T	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
GKAP1 c.424G>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	50.0 (-48.6 to 90.5)
GKAP1 c.427G>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	50.0 (-48.6 to 90.5)
GKAP1 c.432C>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	50.0 (-48.6 to 90.5)
GLP1R c.16G>T	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
GLYATL2 c.680A>C	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
GLYATL2 c.705A>C	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
GLYR1 c.1120G>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
GMNN c.161G>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
GNRH2 c.40_42delCTG	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
GOLGA8A c.1463C>T	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	50.0 (-48.6 to 90.5)
GOLGA8A c.1505G>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	50.0 (-48.6 to 90.5)
GOLGA8A c.1538G>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	0.0 (-65.8 to 65.8)
GRIK4 c.2590C>T	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	0.0 (-65.8 to 65.8)
GRM7 c.2014G>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)

H2AFY c.10C>T	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	0.0 (-65.8 to 65.8)
HAUS5 c.425C>T	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
HERC1 c.11036G>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	50.0 (-48.6 to 90.5)
HIF3A c.1573C>T	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	0.0 (-65.8 to 65.8)
HOXA13 c.396_398delCGC	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	50.0 (-48.6 to 90.5)
HOXD13 c.120C>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
HRH1 c.1048C>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	50.0 (-48.6 to 90.5)
HRNR c.7688G>C	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	50.0 (-48.6 to 90.5)
HSD17B12 c.682C>T	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
HSPG2 c.8873C>T	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
HUWE1 c.1553C>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
HUWE1 c.1924G>T	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
HUWE1 c.7633C>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
ICAM4 c.38dupT	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
IGFN1 c.5612A>G	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
IGFN1 c.5624C>G	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	0.0 (-65.8 to 65.8)
IL12RB1 c.1442G>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
ILF2 c.40_41delGGinsTT	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	0.0 (-65.8 to 65.8)
IQSEC3 c.973G>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	0.0 (-65.8 to 65.8)
ITGAD c.2240G>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	0.0 (-65.8 to 65.8)
ITPR2 c.8022G>T	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)

JKAMP c.158G>C	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	0.0 (-65.8 to 65.8)
JPH3 c.169A>G	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
KIAA0513 c.646G>T	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
KIAA0895 c.720C>G	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	0.0 (-65.8 to 65.8)
KIAA1107 c.3152C>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
KIAA1107 c.3310C>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
KIF5C c.226G>T	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
KLHL34 c.1513G>T	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
KLHL9 c.825T>G	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	0.0 (-65.8 to 65.8)
KLRK1 c.197G>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	50.0 (-48.6 to 90.5)
KMT5C c.1141dupC	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
KNL1 c.1800G>T	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
KRT13 c.610G>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	0.0 (-65.8 to 65.8)
KRTAP9-9 c.35_36insACCTGCTGCAGGACC	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	50.0 (-48.6 to 90.5)
LCA5L c.1198G>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	50.0 (-48.6 to 90.5)
LCAT c.625C>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
LCT c.1925C>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
LDB3 c.2012G>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
LILRB5 c.1274C>T	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
LMNA c.1977G>T	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
LMO7 c.1315T>C	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	50.0 (-48.6 to 90.5)

LOC100505841 c.50G>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
LOC101928841 c.3272G>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
LONRF3 c.712C>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
LRP2 c.13139dupC	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
LRRC4 c.912_913delTG	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	50.0 (-48.6 to 90.5)
LRRC40 c.1457C>T	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	50.0 (-48.6 to 90.5)
LRRK1 c.644G>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
LTBP1 c.307C>T	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
MADD c.3458C>T	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
MAP2K2 c.1069C>T	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
MAZ c.272C>T	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	50.0 (-48.6 to 90.5)
MED21 c.35T>G	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	0.0 (-65.8 to 65.8)
MED23 c.2276dupA	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
METTL5 c.388G>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	0.0 (-65.8 to 65.8)
MICALL1 c.2475C>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
MIER3 c.1113delG	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	0.0 (-65.8 to 65.8)
MMP2 c.1484G>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
MMP24 c.170_172delCGG	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	50.0 (-48.6 to 90.5)
MRPL21 c.581G>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	0.0 (-65.8 to 65.8)
MRVI1 c.1446delA	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
MUC12 c.13432C>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	50.0 (-48.6 to 90.5)

MUC12 c.2740T>C	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	50.0 (-48.6 to 90.5)
MUC12 c.4291G>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	50.0 (-48.6 to 90.5)
MUC12 c.5251A>C	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	0.0 (-65.8 to 65.8)
MUC12 c.5512C>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	50.0 (-48.6 to 90.5)
MUC12 c.5575G>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	50.0 (-48.6 to 90.5)
MUC12 c.5612C>T	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	50.0 (-48.6 to 90.5)
MUC16 c.17447G>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	0.0 (-65.8 to 65.8)
MUC19 c.3641G>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	0.0 (-65.8 to 65.8)
MUC4 c.3605T>C	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	50.0 (-48.6 to 90.5)
MUC4 c.7039A>T	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	50.0 (-48.6 to 90.5)
MUC4 c.8259_10034dup	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	50.0 (-48.6 to 90.5)
MVD c.665G>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
MX1 c.454G>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	50.0 (-48.6 to 90.5)
MYCBP2 c.1826C>T	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
MYCBP2 c.3572C>T	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
MYH14 c.2935G>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	0.0 (-65.8 to 65.8)
MYOF c.1772_1773delAG	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
MYOM3 c.221C>T	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
NALCN c.2063_2065delCCT	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	0.0 (-65.8 to 65.8)
NANOGNB c.495_501delGCATAAGinsAAAAAAA	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	50.0 (-48.6 to 90.5)
NBEA c.5218G>T	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	50.0 (-48.6 to 90.5)

NCKIPSD c.1430C>T	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	50.0 (-48.6 to 90.5)
NEB c.17635-2_17635delAGAinsTTT	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
NEK1 c.739C>T	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
NEPRO c.837delA	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
NEUROD6 c.89A>G	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
NFATC1 c.179C>T	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
NHS c.2203C>T	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
NLRP12 c.2971C>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
NLRP14 c.3228G>T	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
NLRP6 c.176C>T	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
NMD3 c.754G>T	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
NPHP3 c.1525-4_1526delCTAGTAinsTTTTTT	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	50.0 (-48.6 to 90.5)
NR2E1 c.592C>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
NRAP c.4058G>T	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
NRG2 c.2084G>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
NUCB1 c.664C>T	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
NUP98 c.2972C>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
NYAP2 c.703G>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	0.0 (-65.8 to 65.8)
NYNRIN c.3662G>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	0.0 (-65.8 to 65.8)
OBSCN c.6543G>C	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	0.0 (-65.8 to 65.8)
OR13C5 c.243_244delGC	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	50.0 (-48.6 to 90.5)



OR2T2 c.612_618delCGTGCTG	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	0.0 (-65.8 to 65.8)
OR2T2 c.785T>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	50.0 (-48.6 to 90.5)
OR2T3 c.611T>C	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	50.0 (-48.6 to 90.5)
OR2T8 c.590T>G	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
OR2W3 c.337C>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
OR4C12 c.222_224delTTC	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
OR51A4 c.497_500delGAAinsCAAG	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	50.0 (-48.6 to 90.5)
OR52D1 c.127G>T	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	50.0 (-48.6 to 90.5)
OSMR c.937G>T	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
OTOF c.5567G>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
PADI3 c.1739C>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
PCDH18 c.809C>T	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
PCDH8 c.1583G>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
PCLO c.2545G>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	0.0 (-65.8 to 65.8)
PGLYRP3 c.551G>T	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	0.0 (-65.8 to 65.8)
PGS1 c.1069A>G	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	0.0 (-65.8 to 65.8)
PIGO c.3116delT	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	0.0 (-65.8 to 65.8)
PKD1 c.2647C>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
PLD3 c.464C>T	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	0.0 (-65.8 to 65.8)
PLK2 c.328G>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
PLXNA1 c.1114C>T	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)

PLXND1 c.1393G>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	50.0 (-48.6 to 90.5)
PML c.1753delC	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
PODXL2 c.1230delG	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
POLQ c.6811C>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
POLR2B c.632delA	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
POM121 c.1916A>C	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	50.0 (-48.6 to 90.5)
POM121C c.1162_1169delTTTGACTCinsCT	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	0.0 (-65.8 to 65.8)
POTEB2 c.119C>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	50.0 (-48.6 to 90.5)
PPP1R12C c.1907C>G	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
PPP2R2B c.1196G>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	50.0 (-48.6 to 90.5)
PPWD1 c.197- 6_198delCTTCAGTCinsTTTTTTTT	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	50.0 (-48.6 to 90.5)
PRAMEF2 c.280C>T	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
PRKDC c.2601C>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	50.0 (-48.6 to 90.5)
PROSER1 c.1587G>T	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
PRR19 c.355C>T	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	50.0 (-48.6 to 90.5)
PRRT3 c.543G>T	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
PRSS56 c.1646G>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
PTPN13 c.4093G>T	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
R3HDM2 c.79_80delAA	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	0.0 (-65.8 to 65.8)
RABGEF1 c.854C>T	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
RAD50 c.2165delA	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)

RAP2B c.56T>G	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	0.0 (-65.8 to 65.8)
RASGEF1A c.1062delC	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	0.0 (-65.8 to 65.8)
RBM15 c.1231G>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
RBMX c.217-2_217-1delAGinsTT	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	50.0 (-48.6 to 90.5)
RD3 c.292C>T	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
RGPD1 c.4329A>C	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	50.0 (-48.6 to 90.5)
RGS17 c.55C>T	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	0.0 (-65.8 to 65.8)
RIMBP2 c.2627C>T	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	0.0 (-65.8 to 65.8)
RLBP1 c.307C>T	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	0.0 (-65.8 to 65.8)
RNF128 c.103G>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
RRN3 c.337A>G	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	50.0 (-48.6 to 90.5)
RSL1D1 c.1147-5_1147delCTTAGAinsTTTTTT	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	50.0 (-48.6 to 90.5)
RSPH3 c.1186G>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	0.0 (-65.8 to 65.8)
RTTN c.5365G>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
S100A7 c.139T>G	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	0.0 (-65.8 to 65.8)
SAMD13 c.169G>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
SCML2 c.654G>T	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
SCN1A c.1363C>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	0.0 (-65.8 to 65.8)
SCN7A c.2098G>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
SCRIB c.4063C>T	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	50.0 (-48.6 to 90.5)
SDK1 c.1769C>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)

SDK2 c.4706C>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
SEC24A c.2346C>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
SEMA6D c.509C>T	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
SESN1 c.1469G>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
SFT2D3 c.314C>T	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
SHANK1 c.1329G>T	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
SHANK1 c.1366G>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
SHROOM2 c.2815C>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
SIX3 c.406_407delGC	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
SLC30A10 c.1408C>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
SPTBN5 c.2405G>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
SPTLC1 c.1110C>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
ST7 c.1658G>C	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
STARD9 c.1654C>T	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	50.0 (-48.6 to 90.5)
STK32A c.326G>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	0.0 (-65.8 to 65.8)
STRBP c.709C>T	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	0.0 (-65.8 to 65.8)
SVIL c.2083G>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
SYNE1 c.23551A>G	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	50.0 (-48.6 to 90.5)
SYNGR1 c.34G>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	50.0 (-48.6 to 90.5)
TACC2 c.798G>T	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
TCF7L1 c.40_42delGGC	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	50.0 (-48.6 to 90.5)

TCTN2 c.127G>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	0.0 (-65.8 to 65.8)
TEX30 c.132_133delTC	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
TFCP2L1 c.161C>T	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
TM4SF1 c.199T>G	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	0.0 (-65.8 to 65.8)
TMEM202 c.603C>G	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	0.0 (-65.8 to 65.8)
TMEM26 c.709G>T	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
TMEM72 c.490G>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
TMOD3 c.151C>G	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	0.0 (-65.8 to 65.8)
TMPO c.514A>G	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	0.0 (-65.8 to 65.8)
TMPRSS6 c.435C>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
SKP1 c.21G>T	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
SLC25A12 c.887C>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
SLC2A11 c.995C>T	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
SLC35F2 c.448G>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
SLC38A2 c.549T>G	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	0.0 (-65.8 to 65.8)
SLC39A6 c.1088C>T	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
SLC5A2 c.236G>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
SLC7A14 c.1963T>C	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	0.0 (-65.8 to 65.8)
SLC7A9 c.887G>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
SLU7 c.576delA	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	50.0 (-48.6 to 90.5)
SOAT1 c.1421T>G	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	50.0 (-48.6 to 90.5)

SOCS6 c.781G>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
SORBS1 c.3400G>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
SP140 c.205G>T	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
SPATA31E1 c.2651G>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
SPPL2B c.634G>T	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
TMPRSS6 c.943G>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
TNFAIP2 c.512_514delCGG	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	50.0 (-48.6 to 90.5)
TNXB c.8806G>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
TOGARAM2 c.2090C>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
TOP3B c.2299T>C	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	50.0 (-48.6 to 90.5)
TRIM17 c.232C>T	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	0.0 (-65.8 to 65.8)
TRIM28 c.335G>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
TRIM3 c.2235G>T	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	0.0 (-65.8 to 65.8)
TRIO c.9289G>C	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	0.0 (-65.8 to 65.8)
TRIP12 c.1099C>T	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
TSHZ1 c.1204G>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
TSPEAR c.59C>T	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
TSSC4 c.538G>T	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	0.0 (-65.8 to 65.8)
TVP23A c.271T>C	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	50.0 (-48.6 to 90.5)
UBD c.3G>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
UBE2O c.1813G>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)

UGDH c.1294delA	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
UGGT2 c.3474-467_3480del	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	50.0 (-48.6 to 90.5)
URI1 c.49G>T	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
USP28 c.2845C>T	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	50.0 (-48.6 to 90.5)
USP34 c.1142C>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
UTF1 c.302C>T	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
VSTM2B c.457G>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	50.0 (-48.6 to 90.5)
VSTM2B c.603C>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
WASHC2C c.1562A>C	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	50.0 (-48.6 to 90.5)
WASHC2C c.691G>T	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
WDR33 c.160C>T	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
WFS1 c.577_579delAAG	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
WISP1 c.580A>G	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
WWC1 c.2972T>G	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	0.0 (-65.8 to 65.8)
YBX3 c.40_42delACC	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	50.0 (-48.6 to 90.5)
ZFPM1 c.2596C>T	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
ZNF148 c.2380_2383delGGCTinsAA	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	50.0 (-48.6 to 90.5)
ZNF185 c.1222G>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
ZNF221 c.335C>T	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	50.0 (-48.6 to 90.5)
ZNF354C c.1060A>G	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	50.0 (-48.6 to 90.5)
ZNF366 c.1475T>G	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	0.0 (-65.8 to 65.8)

ZNF41 c.1700_1702delAAA	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	0.0 (-65.8 to 65.8)
ZNF521 c.3122T>C	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	0.0 (-65.8 to 65.8)
ZNF550 c.157C>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
ZNF552 c.524_525dupGG	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	50.0 (-48.6 to 90.5)
ZNF552 c.533T>G	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	50.0 (-48.6 to 90.5)
ZNF628 c.794C>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	-50.0 (-90.5 to 48.6)
ZNF883 c.664C>A	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	0.0 (-65.8 to 65.8)
ZSWIM6 c.82_84dupAGC	999999 (999999 to 999999)	999999 (999999 to 999999)	999999 (999999 to 999999)	50.0 (-48.6 to 90.5)

## Statistical analyses

No statistical analyses for this end point

## Secondary: Number of Subjects With Fully Evaluable Archival and Post-Progression Tumor Biopsy by Cohort

End point title	Number of Subjects With Fully Evaluable Archival and Post-Progression Tumor Biopsy by Cohort <sup>[3]</sup>
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End point description:

To estimate the number of fully biomarker evaluable population by cohort to evaluate the success rate in obtaining paired archival and post-progression tumor biopsies that are adequate to meet the objectives of the study. Subjects of SA population in 7 cohorts.

End point type	Secondary
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End point timeframe:

Through study completion, approximately 3 months

Notes:

[3] - The end point is not reporting statistics for all the arms in the baseline period. It is expected all the baseline period arms will be reported on when providing values for an end point on the baseline period.

Justification: Analysis was planned only for the arms specified.

End point values	Cohort 1: Non-small cell lung carcinoma (NSCLC) monotherapy	Cohort 2: NSCLC combination	Cohort 3: Renal cell carcinoma (RCC) with clear cell component	Cohort 4: HR+ HER2- adenocarcinoma of the breast
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	1	4	5	10
Units: subjects				
SA	1	4	5	10
BE	1	4	5	8
BET	0	1	3	6



FBE	0	1	1	1
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End point values	Cohort 5: Castrate- resistant adenocarcinoma of the prostate	Cohort 6: Castrate- resistant adenocarcinoma of the prostate	Cohort 7: gBRCAm HER2- adenocarcinoma of the breast	
Subject group type	Reporting group	Reporting group	Reporting group	
Number of subjects analysed	5	10	1	
Units: subjects				
SA	5	10	1	
BE	5	8	1	
BET	4	2	1	
FBE	1	0	0	

## Statistical analyses

No statistical analyses for this end point

## Secondary: Overall Agreement Rate of Gene Alterations Between Post-Progression Tumor Biopsy and Blood NGS Results by Cohort

End point title	Overall Agreement Rate of Gene Alterations Between Post-Progression Tumor Biopsy and Blood NGS Results by Cohort <sup>[4]</sup>
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End point description:

In the BE (TBD) population, genetic alterations detected in blood using Guardant360 targeted NGS panel were compared to those detected in tissue using tempus targeted NGS panel. BE [targeted blood cfDNA (TBD)] population was analyzed. BE (TBD) population was defined as subjects in the BE population who had results of TBD NGS gene panel sample analysis from the post-progression blood sample.

End point type	Secondary
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End point timeframe:

Through study completion, approximately 3 months

Notes:

[4] - The end point is not reporting statistics for all the arms in the baseline period. It is expected all the baseline period arms will be reported on when providing values for an end point on the baseline period. Justification: Analysis was planned only for the arms specified.

End point values	The BE [targeted blood cfDNA (TBD)] Populations in Cohort 4	The BE (TBD) Populations in Cohort 5 & 6		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	8	10		
Units: Percentage of subjects				
median (full range (min-max))	11.9 (0.0 to 18.8)	0.0 (0.0 to 16.7)		

## Statistical analyses

No statistical analyses for this end point

### Secondary: Change in the Frequency of Alterations in Genes Encoding HLA, $\beta$ 2-Microglobulin, STAT1, JAK1, JAK2, IFN- $\gamma$ and IFN- $\gamma$ R Between Pre-treatment Archival and Post-progression Samples

End point title	Change in the Frequency of Alterations in Genes Encoding HLA, $\beta$ 2-Microglobulin, STAT1, JAK1, JAK2, IFN- $\gamma$ and IFN- $\gamma$ R Between Pre-treatment Archival and Post-progression Samples <sup>[5]</sup>
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End point description:

Mutations in specific genes encoding HLA,  $\beta$ 2-Microglobulin, STAT1, JAK1, JAK2, IFN- $\gamma$  and IFN- $\gamma$ R associated with immune function, have also been shown to impact tumor immunogenicity and response to anti-PD-1/-L1 treatment. Due to limited sample size for analysis, only SA populations were included in the final analysis. Secondary endpoints were analyzed and reported only in Cohort 4 and for Cohort 5&6. PD-1/-L1 inhibition analysis were only conducted in cohort 1, 2 and 3.

End point type	Secondary
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End point timeframe:

Through study completion, approximately 3 months

Notes:

[5] - The end point is not reporting statistics for all the arms in the baseline period. It is expected all the baseline period arms will be reported on when providing values for an end point on the baseline period.

Justification: Analysis was planned only for the arms specified.

End point values	Cohort 1: Non-small cell lung carcinoma (NSCLC) monotherapy	Cohort 2: NSCLC combination	Cohort 3: Renal cell carcinoma (RCC) with clear cell component	
Subject group type	Reporting group	Reporting group	Reporting group	
Number of subjects analysed	0 <sup>[6]</sup>	0 <sup>[7]</sup>	0 <sup>[8]</sup>	
Units: Percentage of subjects				
number (confidence interval 95%)	( to )	( to )	( to )	

Notes:

[6] - Secondary endpoints were analyzed and reported only in Cohort 4 and for Cohort 5&6.

[7] - Secondary endpoints were analyzed and reported only in Cohort 4 and for Cohort 5&6.

[8] - Secondary endpoints were analyzed and reported only in Cohort 4 and for Cohort 5&6.

## Statistical analyses

No statistical analyses for this end point

### Secondary: Frequency of Alterations in Genes Encoding HLA, $\beta$ 2-Microglobulin, STAT1, JAK1, JAK2, IFN- $\gamma$ and IFNGR in cfDNA.

End point title	Frequency of Alterations in Genes Encoding HLA, $\beta$ 2-Microglobulin, STAT1, JAK1, JAK2, IFN- $\gamma$ and IFNGR in cfDNA. <sup>[9]</sup>
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End point description:

Mutations in specific genes encoding HLA,  $\beta$ 2-Microglobulin, STAT1, JAK1, JAK2, IFN- $\gamma$  and IFNGR in circulating free DNA (cfDNA) associated with immune function, have also been shown to impact tumor immunogenicity and response to anti-PD-1/-L1 treatment. Due to limited sample size for analysis, only SA populations were included in the final analysis. Secondary endpoints were analyzed and reported only in Cohort 4 and for Cohort 5&6. PD-1/-L1 inhibition analysis were only conducted in cohort 1, 2 and 3.

End point type	Secondary
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End point timeframe:

Through study completion, approximately 3 months

Notes:

[9] - The end point is not reporting statistics for all the arms in the baseline period. It is expected all the baseline period arms will be reported on when providing values for an end point on the baseline period.  
Justification: Analysis was planned only for the arms specified.

End point values	Cohort 1: Non-small cell lung carcinoma (NSCLC) monotherapy	Cohort 2: NSCLC combination	Cohort 3: Renal cell carcinoma (RCC) with clear cell component	
Subject group type	Reporting group	Reporting group	Reporting group	
Number of subjects analysed	0 <sup>[10]</sup>	0 <sup>[11]</sup>	0 <sup>[12]</sup>	
Units: Percentage of subjects				
number (confidence interval 95%)	( to )	( to )	( to )	

Notes:

[10] - Secondary endpoints were analyzed and reported only in Cohort 4 and for Cohort 5&6.

[11] - Secondary endpoints were analyzed and reported only in Cohort 4 and for Cohort 5&6.

[12] - Secondary endpoints were analyzed and reported only in Cohort 4 and for Cohort 5&6.

## Statistical analyses

No statistical analyses for this end point

## Secondary: Change in Frequency of RB1 Gene Alterations Between Pre-Treatment Archival and Post-Progression Samples

End point title	Change in Frequency of RB1 Gene Alterations Between Pre-Treatment Archival and Post-Progression Samples <sup>[13]</sup>
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End point description:

Mutations in RB1 gene associated with immune function, have also been shown to impact tumor immunogenicity and related with CDK4/6 inhibition. CDK4 or CDK6 complexed with cyclin D1 (CCND1) phosphorylates the retinoblastoma gene product (Rb), releasing the E2F and DP transcription factors that regulate the expression of genes required for entry into the S phase of the cell cycle. BET Population and BET [WETD] Population were analyzed. The BET population was defined as subjects in the BE population who have a targeted tumor DNA panel biomarker result from both the archival and de novo biopsy tumor tissue biospecimen. BET (WETD) was defined as all subjects in the BET population who have results of whole exome tumor DNA (WETD) NGS sample analysis from both the archival and de novo biopsy tumor tissue biospecimen.

End point type	Secondary
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End point timeframe:

Through study completion, approximately 3 months

Notes:

[13] - The end point is not reporting statistics for all the arms in the baseline period. It is expected all the baseline period arms will be reported on when providing values for an end point on the baseline period.

Justification: Analysis was planned only for the arms specified.

End point values	The biomarker evaluable target (BET) Populations in Cohort 4	The BET (whole exome tumor DNA [WETD]) Populations in Cohort 4		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	6	3		
Units: Percentage of subjects				
number (confidence interval 95%)	0.0 (-39.0 to 39.0)	-33.3 (-79.2 to 41.5)		

## Statistical analyses

No statistical analyses for this end point

### Secondary: Percentage of Subjects Who Carried the RB1 Gene Alterations in Post-Progression Blood cfDNA

End point title	Percentage of Subjects Who Carried the RB1 Gene Alterations in Post-Progression Blood cfDNA <sup>[14]</sup>
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End point description:

Mutations in RB1 gene associated with immune function, have also been shown to impact tumor immunogenicity and related with CDK4/6 inhibition. CDK4 or CDK6 complexed with cyclin D1 (CCND1) phosphorylates the retinoblastoma gene product (Rb), releasing the E2F and DP transcription factors that regulate the expression of genes required for entry into the S phase of the cell cycle. BE [TBD] was analyzed. BE (TBD) was defined as all subjects in the BE population who have results of targeted blood cfDNA (TBD) NGS gene panel sample analysis from the post- progression blood sample.

End point type	Secondary
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End point timeframe:

Through study completion, approximately 3 months

Notes:

[14] - The end point is not reporting statistics for all the arms in the baseline period. It is expected all the baseline period arms will be reported on when providing values for an end point on the baseline period.

Justification: Analysis was planned only for the arms specified.

End point values	The BE [targeted blood cfDNA (TBD)] Populations in Cohort 4			
Subject group type	Reporting group			
Number of subjects analysed	8			
Units: Percentage of subjects				
number (confidence interval 95%)				
c.151G>T	12.5 (2.2 to 47.1)			
c.184C>T	12.5 (2.2 to 47.1)			
c.54_79delGGAACCCCGGCACCGCCGC CGCCGC	12.5 (2.2 to 47.1)			

## Statistical analyses

No statistical analyses for this end point

### Secondary: Change in Frequency of AR Gene Alterations Between Pre-Treatment Archival and Post-Progression Samples

End point title	Change in Frequency of AR Gene Alterations Between Pre-
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## End point description:

Pre-treatment archival tumor samples and post-progression de novo tumor biopsies were analyzed to identify molecular markers of resistance to selected anti-cancer therapies. BET Population and BET [WETD] Population was analyzed. The BET population was defined as subjects in the BE population who have a targeted tumor DNA panel biomarker result from both the archival and de novo biopsy tumor tissue biospecimen. BET (WETD) was defined as all subjects in the BET population who have results of whole exome tumor DNA (WETD) NGS sample analysis from both the archival and de novo biopsy tumor tissue biospecimen.

End point type	Secondary
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## End point timeframe:

Through study completion, approximately 3 months

## Notes:

[15] - The end point is not reporting statistics for all the arms in the baseline period. It is expected all the baseline period arms will be reported on when providing values for an end point on the baseline period.

Justification: Analysis was planned only for the arms specified.

End point values	The BET Populations in Cohort 5 & 6	The BET (WETD) Populations in Cohort 5 & 6		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	6	2		
Units: Percentage of subjects				
number (confidence interval 95%)	0.0 (-39.0 to 39.0)	0.0 (-65.8 to 65.8)		

## Statistical analyses

No statistical analyses for this end point

### Secondary: Percentage of Subjects Who Carried the AR Gene Alterations in Post-Progression Blood cfDNA

End point title	Percentage of Subjects Who Carried the AR Gene Alterations in Post-Progression Blood cfDNA <sup>[16]</sup>
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## End point description:

Androgen receptor (AR) gene alterations can be evaluated as mechanisms of resistance to enzalutamide or abiraterone. BE [TBD] was analyzed. BE (TBD) was defined as all subjects in the BE population who have results of targeted blood cfDNA (TBD) NGS gene panel sample analysis from the post- progression blood sample.

End point type	Secondary
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## End point timeframe:

Through study completion, approximately 3 months

## Notes:

[16] - The end point is not reporting statistics for all the arms in the baseline period. It is expected all the baseline period arms will be reported on when providing values for an end point on the baseline period.

Justification: Analysis was planned only for the arms specified.

End point values	The BE (TBD) Populations in Cohort 5 & 6			
Subject group type	Reporting group			
Number of subjects analysed	10			
Units: Percentage of subjects				
number (confidence interval 95%)				
c.2105T>A	20.0 (5.7 to 51.0)			
c.2202G>C	10.0 (1.8 to 40.4)			
c.2632A>G	10.0 (1.8 to 40.4)			

## Statistical analyses

No statistical analyses for this end point

## Secondary: Change in Expression of Nuclear Hormone Receptors Between Pre-Treatment Archival and Post-Progression Samples

End point title	Change in Expression of Nuclear Hormone Receptors Between Pre-Treatment Archival and Post-Progression Samples <sup>[17]</sup>
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End point description:

The differences in the expression of nuclear HR reflecting nuclear receptor pathway activity between the archival and de novo samples. Using HTG panel in BET (TTR) population and Tempus RNAseq in BET (WTTR) population. BET [targeted tumor RNA (TTR)] Population and BET [whole transcriptome tumor RNA (WTTR)] Population were analyzed. BET (TTR) was defined as all subjects in the BET population who have results of TTR sample analysis from both the archival and de novo biopsy tumor tissue biospecimen. BET (WTTR) was defined as all subjects in the BET population who have results of WTTR NGS sample analysis from both the archival and de novo biopsy tumor tissue biospecimen.

End point type	Secondary
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End point timeframe:

Through study completion, approximately 3 months

Notes:

[17] - The end point is not reporting statistics for all the arms in the baseline period. It is expected all the baseline period arms will be reported on when providing values for an end point on the baseline period.

Justification: Analysis was planned only for the arms specified.

End point values	The BET [targeted tumor RNA (TTR)] Populations in Cohort 5 & 6	The BET [WTTR] Populations in Cohort 5 & 6		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	2	6		
Units: Units on a scale				
arithmetic mean (confidence interval 95%)				
ESR1	0.3 (-16.4 to 17.1)	25.6 (-11.2 to 62.5)		
ESR2	-0.4 (-6.3 to 5.5)	-1.1 (-2.3 to 0.1)		
NR3C1	0.5 (-1.2 to 2.1)	5.4 (-30.7 to 41.5)		

NR3C2	999999 (999999 to 999999)	3.7 (-18.2 to 25.6)		
PGR	-0.5 (-13.4 to 12.4)	2.0 (-3.9 to 7.9)		
AR	-0.7 (-10.9 to 9.4)	549.9 (-480.1 to 1579.9)		

## Statistical analyses

No statistical analyses for this end point

## Secondary: Change in the Frequency of Somatic Reversion Alterations in gBRCA Mutant Allele Between Pre-treatment Archival and Post-progression Samples.

End point title	Change in the Frequency of Somatic Reversion Alterations in gBRCA Mutant Allele Between Pre-treatment Archival and Post-progression Samples. <sup>[18]</sup>
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End point description:

PARP inhibitors induce synthetic lethality in tumor cells bearing mutations and/or deletions in genes involved in homologous recombination or other DNA repair pathways, most notably BRCA genes. Somatic reversion of gBRCA gene alterations was evaluated as a mechanism of resistance to monotherapy PARP inhibition. Due to limited sample size for analysis, only SA populations were included in the final analysis. Secondary endpoints were analyzed and reported only for Cohort 4 and for Cohort 5&6. PARP inhibition analysis were only conducted in cohort 7.

End point type	Secondary
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End point timeframe:

Through study completion, approximately 3 months

Notes:

[18] - The end point is not reporting statistics for all the arms in the baseline period. It is expected all the baseline period arms will be reported on when providing values for an end point on the baseline period.

Justification: Analysis was planned only for the arms specified.

<b>End point values</b>	Cohort 7: gBRCAm HER2- adenocarcinoma of the breast			
Subject group type	Reporting group			
Number of subjects analysed	0 <sup>[19]</sup>			
Units: Percentage of subjects				
number (confidence interval 95%)	( to )			

Notes:

[19] - Secondary endpoints were analyzed and reported only in Cohort 4 and for Cohort 5&6.

## Statistical analyses

No statistical analyses for this end point

## Adverse events

### Adverse events information

Timeframe for reporting adverse events:

From Biospecimen Collection Day 1 to Post-Biospecimen Follow-up ≤30 days after receipt of NGS results at the provider's facility

Assessment type	Non-systematic
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### Dictionary used

Dictionary name	MedDRA
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Dictionary version	23.1
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### Reporting groups

Reporting group title	Cohort 1: NSCLC monotherapy
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Reporting group description:

Progressive disease on 1st line monotherapy anti-PD-1/-L1.

Reporting group title	Cohort 2: NSCLC combination
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Reporting group description:

Progressive disease on 1st line anti-PD-1/-L1 plus standard doublet platinum-containing regimen; or progressive disease on 1st line anti-PD-1/-L1 plus standard doublet platinum-containing regimen followed by continuation of single agent anti-PD-1/-L1.

Reporting group title	Cohort 3: RCC with clear cell component
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Reporting group description:

Progressive disease on 2nd line monotherapy anti-PD-1/-L1; or progressive disease on 1st line combination of doublet anti-PD-1/-L1 with anti-CTLA-4; or progressive disease on 1st line combination of avelumab with axitinib or pembrolizumab with axitinib.

Reporting group title	Cohort 4: HR+ HER2- adenocarcinoma of the breast
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Reporting group description:

Progressive disease on 1st line combination of doublet palbociclib with hormonal therapy.

Reporting group title	Cohort 5: Castrate-resistant adenocarcinoma of the prostate
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Reporting group description:

Progressive disease on enzalutamide monotherapy.

Reporting group title	Cohort 6: Castrate-resistant adenocarcinoma of the prostate
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Reporting group description:

Progressive disease on abiraterone in combination with prednisone.

Reporting group title	Cohort 7: gBRCAm HER2- adenocarcinoma of the breast
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Reporting group description:

Progressive disease on a PARP inhibitor monotherapy in subjects previously treated with chemotherapy in the neoadjuvant, adjuvant, or metastatic setting.

Serious adverse events	Cohort 1: NSCLC monotherapy	Cohort 2: NSCLC combination	Cohort 3: RCC with clear cell component
Total subjects affected by serious adverse events			
subjects affected / exposed	0 / 1 (0.00%)	0 / 4 (0.00%)	0 / 5 (0.00%)
number of deaths (all causes)	0	0	0
number of deaths resulting from adverse events			

Serious adverse events	Cohort 4: HR+ HER2- adenocarcinoma of	Cohort 5: Castrate-resistant adenocarcinoma of	Cohort 6: Castrate-resistant adenocarcinoma of
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	the breast	the prostate	the prostate
Total subjects affected by serious adverse events			
subjects affected / exposed	0 / 10 (0.00%)	0 / 5 (0.00%)	0 / 10 (0.00%)
number of deaths (all causes)	0	0	0
number of deaths resulting from adverse events			

Serious adverse events	Cohort 7: gBRCAm HER2- adenocarcinoma of the breast		
Total subjects affected by serious adverse events			
subjects affected / exposed	0 / 1 (0.00%)		
number of deaths (all causes)	0		
number of deaths resulting from adverse events			

Frequency threshold for reporting non-serious adverse events: 0 %

Non-serious adverse events	Cohort 1: NSCLC monotherapy	Cohort 2: NSCLC combination	Cohort 3: RCC with clear cell component
Total subjects affected by non-serious adverse events			
subjects affected / exposed	0 / 1 (0.00%)	0 / 4 (0.00%)	0 / 5 (0.00%)
Injury, poisoning and procedural complications			
Post procedural contusion			
subjects affected / exposed	0 / 1 (0.00%)	0 / 4 (0.00%)	0 / 5 (0.00%)
occurrences (all)	0	0	0
Procedural pain			
subjects affected / exposed	0 / 1 (0.00%)	0 / 4 (0.00%)	0 / 5 (0.00%)
occurrences (all)	0	0	0
Nervous system disorders			
Syncope			
subjects affected / exposed	0 / 1 (0.00%)	0 / 4 (0.00%)	0 / 5 (0.00%)
occurrences (all)	0	0	0
Skin and subcutaneous tissue disorders			
Dermatitis contact			
subjects affected / exposed	0 / 1 (0.00%)	0 / 4 (0.00%)	0 / 5 (0.00%)
occurrences (all)	0	0	0

Non-serious adverse events	Cohort 4: HR+ HER2- adenocarcinoma of	Cohort 5: Castrate- resistant adenocarcinoma of	Cohort 6: Castrate- resistant adenocarcinoma of
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	the breast	the prostate	the prostate
Total subjects affected by non-serious adverse events subjects affected / exposed	1 / 10 (10.00%)	1 / 5 (20.00%)	0 / 10 (0.00%)
Injury, poisoning and procedural complications Post procedural contusion subjects affected / exposed occurrences (all)	1 / 10 (10.00%) 1	0 / 5 (0.00%) 0	0 / 10 (0.00%) 0
Procedural pain subjects affected / exposed occurrences (all)	1 / 10 (10.00%) 1	0 / 5 (0.00%) 0	0 / 10 (0.00%) 0
Nervous system disorders Syncope subjects affected / exposed occurrences (all)	0 / 10 (0.00%) 0	1 / 5 (20.00%) 1	0 / 10 (0.00%) 0
Skin and subcutaneous tissue disorders Dermatitis contact subjects affected / exposed occurrences (all)	1 / 10 (10.00%) 1	0 / 5 (0.00%) 0	0 / 10 (0.00%) 0

<b>Non-serious adverse events</b>	Cohort 7: gBRCAm HER2- adenocarcinoma of the breast		
Total subjects affected by non-serious adverse events subjects affected / exposed	0 / 1 (0.00%)		
Injury, poisoning and procedural complications Post procedural contusion subjects affected / exposed occurrences (all)	0 / 1 (0.00%) 0		
Procedural pain subjects affected / exposed occurrences (all)	0 / 1 (0.00%) 0		
Nervous system disorders Syncope subjects affected / exposed occurrences (all)	0 / 1 (0.00%) 0		
Skin and subcutaneous tissue disorders Dermatitis contact			

subjects affected / exposed	0 / 1 (0.00%)		
occurrences (all)	0		

## More information

### Substantial protocol amendments (globally)

Were there any global substantial amendments to the protocol? Yes

Date	Amendment
12 May 2020	<p>Schedule of Activities updated to reflect changes to Informed Consent and Screening process.</p> <p>Section 3. Study design description updated to reflect changes to Informed Consent and Screening process.</p> <p>Figure 1 Study schema updated to reflect changes to Informed Consent and Screening process.</p> <p>Table 1 updated to reflect changes to permitted anti-cancer therapies and estimated cohort size.</p> <p>Inclusion Criterion 1c revised to allow specific axitinib combinations in order to reflect current standard of care therapy.</p> <p>Subject enrollment cohorts 1 and 2 combined and cohort sample size decreased by a total of 50 in order to reflect current standard of care therapy.</p> <p>Prior Protocol Administrative Clarification Letters (PACLs) incorporated (Section 4.1).</p> <p>Pre-screening and main Informed Consent processes merged in order to simplify the consent process (Section 5).</p> <p>Window defined for de novo tumor tissue biopsy laboratory shipment in order to allow operational flexibility while maintaining timely return of Next Generation Sequencing analyses (Section 5.2.1.2).</p> <p>Window defined for research blood draws in order to allow operational flexibility while maintaining a collection date contemporaneous with the de novo tumor tissue biopsy (Section 5.2.1.3). Clarification added regarding screening (Section 5.1), re-screening (Section 5.1.5), enrollment (Section 5.2), and follow-up (Section 5.3) activities.</p> <p>Clarification added regarding allowing subjects to subject in other concurrent investigational treatment clinical trials, with prior Sponsor agreement (Section 5.1.2).</p> <p>Clarification added regarding adverse event reporting.</p> <p>Sample size determination re-worded for clarity.</p> <p>Appendix 2 Subject Assessment Questionnaire updated to reflect current version.</p> <p>Appendix 3 Physician Assessment Questionnaire updated to reflect current version.</p> <p>Country-Specific (France) Contrat Unique added to Appendix.</p> <p>Administrative updates made throughout to ensure consistent terminology.</p>

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Notes:

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## **Interruptions (globally)**

Were there any global interruptions to the trial? No

## **Limitations and caveats**

Limitations of the trial such as small numbers of subjects analysed or technical problems leading to unreliable data.

Because of the global COVID-19 pandemic and the observed high failure rate of tumor biospecimen analyses, the study was terminated in October 2020. This decision was not made as a result of any safety concerns or regulatory interactions.
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Notes: