

1 Addendum I

1.1 TPX-Tabellen: Einzelepitoexpression

Im folgenden finden sich in tabellarischer Zusammenfassung die Ergebnisse der Einzelepitoexpression für die Kompartimente

- Gesamthaut
- Epidermis
- Kapillaren
- extrakapilläre Dermis
- basale Epidermis
- (Th17-Zellen)-Zellen

und für

- das Gesamtkollektiv (n=6)
- die Etanercept-Therapie-Responder (n=4)
- die Etanercept-Therapie-Non-Responder (n=2)

Aufgeführt sind Mittelwert \pm Standardabweichung. Beim Vergleich der Bedingungen sind die im Bezug auf APS signifikant unterschiedlichen Ergebnisse grün unterlegt. Dabei ist zu betonen, dass es sich um eine rein deskriptive statistische Analyse mittels t-Test auf einem Signifikanzniveau von $p < 0,05$ mit einer Bonferroni-Adjustierung für 4-maligen Vergleich handelt ($\alpha < 0,0125$).

1.1.1 Einzelepito-Expression der Gesamthaut

Tabelle 1: Mittelwerte und Standardabweichungen der Einzelepito-Expression (PEN) für alle n=6 Patienten (Gesamthaut)

Epitop	APS	UPS	W02	W06	W12
Aktin	11849 \pm 4402	5184 \pm 2284	8338 \pm 5295	8461 \pm 5090	7044 \pm 4672
BCL2	18570 \pm 13167	3538 \pm 5781	12277 \pm 11615	5298 \pm 6415	5203 \pm 3660
c-myc	43874 \pm 13445	16393 \pm 9572	20945 \pm 12594	13612 \pm 5414	17887 \pm 10989
CCR6	2698 \pm 2186	1054 \pm 664	3361 \pm 2719	3479 \pm 1913	980 \pm 772
CD11a	26615 \pm 11009	1734 \pm 1101	31005 \pm 15566	11769 \pm 13217	9183 \pm 8016
CD11b	9390 \pm 3723	2944 \pm 2177	8182 \pm 7297	16947 \pm 6808	14488 \pm 6573
CD120a	1134 \pm 893	392 \pm 354	1323 \pm 1215	1187 \pm 945	614 \pm 152
CD120b	5976 \pm 3821	1512 \pm 782	3271 \pm 1156	8409 \pm 10679	2189 \pm 1245
CD138	110785 \pm 51051	17563 \pm 3334	58244 \pm 15065	38678 \pm 25271	27075 \pm 23550
CD15	3344 \pm 2225	590 \pm 576	4321 \pm 5909	1052 \pm 884	578 \pm 355
CD1a	2840 \pm 2389	1823 \pm 2156	1854 \pm 1256	3082 \pm 2461	1131 \pm 524
CD2	22606 \pm 11118	1383 \pm 926	20201 \pm 9815	19919 \pm 21503	8606 \pm 8547
CD207	2719 \pm 993	2074 \pm 1291	3225 \pm 910	2863 \pm 1430	1732 \pm 496
CD24	3861 \pm 3661	1878 \pm 1162	5467 \pm 3328	3928 \pm 1933	3117 \pm 2158
CD28	17361 \pm 9098	403 \pm 819	13236 \pm 9259	14414 \pm 19870	5261 \pm 5564
CD29	55463 \pm 18554	13080 \pm 3688	33676 \pm 7341	24914 \pm 5909	26152 \pm 12779
CD3	25401 \pm 15181	4613 \pm 2054	31024 \pm 16650	28065 \pm 30894	10846 \pm 8989
CD31	9342 \pm 4054	3068 \pm 1233	10260 \pm 3368	10581 \pm 6377	6864 \pm 4158
CD4	22840 \pm 11888	2446 \pm 1563	23821 \pm 16506	22601 \pm 24652	14357 \pm 9658
CD44	87776 \pm 27703	37747 \pm 13484	100817 \pm 4685	81693 \pm 14043	56091 \pm 14357
CD45	26776 \pm 14591	1083 \pm 618	27491 \pm 14993	12954 \pm 12494	5412 \pm 5128
CD45RA	8325 \pm 2983	1040 \pm 419	7158 \pm 2726	4845 \pm 3923	4039 \pm 2989
CD45RO	13897 \pm 6292	550 \pm 409	17332 \pm 8495	15419 \pm 22167	3143 \pm 4996
CD52	18049 \pm 11550	1110 \pm 1377	20204 \pm 13126	14522 \pm 22430	5326 \pm 7034
CD54	53863 \pm 25570	7504 \pm 5047	31787 \pm 14587	20278 \pm 17598	21677 \pm 14176
CD56	3559 \pm 1607	2887 \pm 795	3232 \pm 738	3360 \pm 1094	2660 \pm 983
CD58	33379 \pm 39592	5876 \pm 6575	18705 \pm 18857	16973 \pm 22610	14041 \pm 13365
CD62E	2253 \pm 1640	125 \pm 144	3581 \pm 2779	1295 \pm 1578	649 \pm 508
CD62P	4264 \pm 3468	1216 \pm 697	4098 \pm 2231	3374 \pm 1765	3121 \pm 1764

Epitop	APS	UPS	W02	W06	W12
CD68	8608 ± 3715	5396 ± 1384	10671 ± 2131	9232 ± 890	10791 ± 5889
CD7	11584 ± 5672	984 ± 952	19090 ± 8314	10829 ± 10648	4875 ± 4811
CD8a	6247 ± 1982	1310 ± 257	7735 ± 3494	8915 ± 9829	4646 ± 4263
CLA	8993 ± 3296	867 ± 469	9385 ± 3339	5587 ± 2295	3722 ± 2005
CollagenTypIV	28984 ± 15797	13275 ± 3512	39659 ± 6956	28690 ± 13639	22972 ± 12856
Cytokeratin14	142298 ± 54427	25916 ± 3615	115861 ± 37207	72752 ± 39227	60612 ± 50123
FactorXIII	8276 ± 3943	6475 ± 2284	12440 ± 5875	11643 ± 3352	11109 ± 6617
HLA-DR	89520 ± 26628	28312 ± 9602	59800 ± 21279	56822 ± 31924	51286 ± 16054
IL-22R	14722 ± 6895	3585 ± 3264	3527 ± 3481	6088 ± 3952	12212 ± 8976
IL-23R	9210 ± 6924	4404 ± 7644	4273 ± 5237	5938 ± 1867	2616 ± 2423
Ki67	7729 ± 2067	1329 ± 795	4568 ± 5151	3069 ± 2252	3911 ± 5256
Podoplanin	15373 ± 9626	6523 ± 3587	12826 ± 15417	3848 ± 2065	6385 ± 4782
Propidiumjodid	89044 ± 22635	23641 ± 3038	74421 ± 18818	64260 ± 24810	49989 ± 20538
SNA1	59662 ± 30238	25634 ± 10567	37652 ± 11011	25994 ± 5608	25672 ± 6226
STAT3	37794 ± 19587	12362 ± 6022	16396 ± 24609	10769 ± 4709	8918 ± 6560
TIA1	2804 ± 1612	467 ± 307	3972 ± 2813	2155 ± 1556	1393 ± 1591
Vimentin	49258 ± 10195	23466 ± 7433	49347 ± 7912	42741 ± 11407	29539 ± 11984

Tabelle 2: Mittelwerte und Standardabweichungen der Einzelepitop-Expression (PEN) für die als Responder identifizierten n=4 Patienten (Gesamthaut)

Epitop	APS	UPS	W02	W06	W12
Aktin	11916 ± 4259	4417 ± 1819	11013 ± 2173	10055 ± 4411	7355 ± 5381
BCL2	21736 ± 15772	4387 ± 6582	9932 ± 7668	1625 ± 764	6309 ± 3824
c-myc	40102 ± 10798	16124 ± 3122	15610 ± 8736	12336 ± 2147	13531 ± 7732
CCR6	3037 ± 2391	1087 ± 528	2469 ± 2166	3070 ± 635	767 ± 461
CD11a	28323 ± 11723	2051 ± 1099	23981 ± 10954	4978 ± 2557	6700 ± 3721
CD11b	9241 ± 4213	3541 ± 2218	3344 ± 2677	17615 ± 4338	12536 ± 4914
CD120a	1115 ± 1113	496 ± 353	707 ± 241	1262 ± 1104	619 ± 113
CD120b	7397 ± 3898	1567 ± 791	3489 ± 1381	3485 ± 1685	2022 ± 1415
CD138	105852 ± 63041	16099 ± 1825	55279 ± 15636	32352 ± 6608	20485 ± 7712
CD15	3874 ± 2289	622 ± 602	1259 ± 2053	1581 ± 805	699 ± 320
CD1a	1340 ± 714	2089 ± 2405	2223 ± 1430	2146 ± 1261	910 ± 396
CD2	25714 ± 9746	1666 ± 901	14947 ± 3147	10318 ± 3261	6641 ± 4915
CD207	2534 ± 1227	2495 ± 1212	3034 ± 1138	2130 ± 293	1587 ± 236
CD24	4352 ± 4535	2088 ± 1230	3994 ± 1853	4845 ± 2035	3317 ± 2608
CD28	20599 ± 8262	494 ± 945	8608 ± 7352	3640 ± 2438	3975 ± 3401
CD29	53916 ± 19344	13225 ± 2896	31488 ± 9311	25219 ± 5964	25382 ± 13346
CD3	29367 ± 16135	5008 ± 1747	21862 ± 9225	13894 ± 5984	7776 ± 4213
CD31	9339 ± 2710	3316 ± 1346	8709 ± 1886	9222 ± 3443	7106 ± 5014
CD4	21779 ± 4013	2881 ± 1514	15281 ± 1851	11042 ± 6748	11391 ± 6501
CD44	79854 ± 24787	34256 ± 13408	103835 ± 3030	82596 ± 17723	50811 ± 4955
CD45	28397 ± 15114	1117 ± 690	20072 ± 7705	6764 ± 4213	4221 ± 3242
CD45RA	8528 ± 2267	1005 ± 382	5884 ± 1278	3302 ± 974	3064 ± 434
CD45RO	13390 ± 4921	596 ± 410	13230 ± 8820	3852 ± 1691	1505 ± 1700
CD52	22716 ± 11549	779 ± 792	14904 ± 15367	4304 ± 1471	3552 ± 4105
CD54	58906 ± 14388	8447 ± 5601	25712 ± 10853	14025 ± 6300	19479 ± 15558
CD56	3598 ± 1681	2802 ± 779	3222 ± 519	3746 ± 718	2897 ± 1085
CD58	34043 ± 50278	5530 ± 6597	10485 ± 8924	4425 ± 1815	9460 ± 4953
CD62E	2706 ± 1901	136 ± 158	3634 ± 3088	849 ± 835	623 ± 419
CD62P	4717 ± 4164	1209 ± 679	5355 ± 1916	3989 ± 1403	3285 ± 2055
CD68	9519 ± 2506	5842 ± 673	10976 ± 2431	9240 ± 637	9410 ± 5152
CD7	10967 ± 2380	1230 ± 987	17107 ± 7169	5181 ± 1263	3924 ± 3216
CD8a	6486 ± 2285	1307 ± 299	6346 ± 2230	4400 ± 1300	3376 ± 1163
CLA	10358 ± 2652	971 ± 469	8634 ± 3006	4958 ± 2274	3099 ± 876
CollagenTypIV	26762 ± 18941	12989 ± 4006	40213 ± 7624	36140 ± 13986	20948 ± 9509
Cytokeratin14	130243 ± 61016	26014 ± 4135	92820 ± 16359	51235 ± 7438	41072 ± 11389
FactorXIII	7159 ± 4527	6634 ± 2677	15473 ± 2942	12186 ± 3585	11835 ± 6764
HLA-DR	91581 ± 33813	29359 ± 10991	64299 ± 16624	58602 ± 44841	47787 ± 10745
IL-22R	14734 ± 8682	3656 ± 3566	3725 ± 4251	8236 ± 3780	8951 ± 5951
IL-23R	6971 ± 7681	3380 ± 7819	1086 ± 511	6028 ± 2071	3310 ± 2588
Ki67	8314 ± 2361	1286 ± 877	5310 ± 5267	4142 ± 2190	1848 ± 784
Podoplanin	16186 ± 10393	6956 ± 3994	3990 ± 1419	3879 ± 818	4260 ± 1267
Propidiumjodid	93172 ± 15831	24270 ± 3161	76743 ± 18502	53060 ± 15750	44894 ± 12408
SNA1	55431 ± 38053	26133 ± 12447	38053 ± 14805	25194 ± 5981	24868 ± 7413
STAT3	29230 ± 17678	10359 ± 5240	2908 ± 2654	11177 ± 2964	10043 ± 6814
TIA1	3193 ± 1803	467 ± 264	2400 ± 1381	1662 ± 466	932 ± 604
Vimentin	50664 ± 11619	22643 ± 8392	50622 ± 5955	48165 ± 9105	25894 ± 5309

Tabelle 3: Mittelwerte und Standardabweichungen der Einzelepitop-Expression (PEN) für die als Non-Responder identifizierten n=2 Patienten (Gesamthaut)

Epitop	APS	UPS	W02	W06	W12
Aktin	11715 ± 6511	7483 ± 2424	4770 ± 6604	6336 ± 6056	6268 ± 3668
BCL2	12239 ± 594	991 ± 71	15404 ± 17056	10197 ± 7719	2438 ± 672
c-myc	51419 ± 19577	17201 ± 24309	28058 ± 15116	15313 ± 8569	28776 ± 12388
CCR6	2020 ± 2317	953 ± 1291	4551 ± 3381	4024 ± 3097	1511 ± 1390
CD11a	23199 ± 12599	783 ± 177	40372 ± 17794	20825 ± 17291	15391 ± 14908
CD11b	9687 ± 3975	1153 ± 42	14633 ± 6306	16056 ± 10428	19367 ± 9797
CD120a	1172 ± 518	82 ± 28	2145 ± 1603	1087 ± 910	600 ± 294
CD120b	3133 ± 1784	1349 ± 1042	2980 ± 963	14973 ± 14992	2607 ± 893
CD138	120652 ± 28578	21953 ± 3119	62198 ± 16527	47112 ± 40788	43551 ± 48267
CD15	2286 ± 2381	495 ± 700	8405 ± 7393	348 ± 266	278 ± 304
CD1a	5840 ± 18	1024 ± 1385	1362 ± 1016	4330 ± 3419	1684 ± 407
CD2	16392 ± 14739	536 ± 186	27208 ± 12054	32720 ± 30678	13517 ± 16559
CD207	3088 ± 61	811 ± 245	3480 ± 609	3841 ± 1870	2095 ± 940
CD24	2880 ± 1556	1247 ± 901	7430 ± 4238	2705 ± 1037	2617 ± 188
CD28	10886 ± 9127	130 ± 150	19405 ± 8730	28781 ± 25174	8473 ± 10515
CD29	58558 ± 23873	12645 ± 7264	36593 ± 3044	24509 ± 7140	28077 ± 16031
CD3	17468 ± 13511	3430 ± 3245	43239 ± 17674	46960 ± 43272	18522 ± 15774
CD31	9347 ± 7756	2326 ± 342	12329 ± 4178	12393 ± 9779	6262 ± 1470
CD4	24962 ± 25392	1140 ± 1043	35207 ± 21724	38012 ± 33637	21770 ± 15387
CD44	103620 ± 35228	48220 ± 9025	96793 ± 3093	80488 ± 10802	69291 ± 25508
CD45	23535 ± 18645	983 ± 515	37384 ± 18124	21206 ± 16215	8391 ± 9533
CD45RA	7919 ± 5346	1145 ± 687	8857 ± 3501	6903 ± 5798	6475 ± 6019
CD45RO	14909 ± 11054	410 ± 530	22800 ± 4616	30841 ± 29077	7240 ± 9552
CD52	8714 ± 2339	2104 ± 2739	27272 ± 5617	28145 ± 31919	9761 ± 13207
CD54	43777 ± 48404	4676 ± 337	39888 ± 17012	28616 ± 26212	27171 ± 12368
CD56	3482 ± 2102	3139 ± 1105	3244 ± 1110	2844 ± 1455	2067 ± 315
CD58	32051 ± 15761	6913 ± 9065	29665 ± 25139	33702 ± 28179	25494 ± 24625
CD62E	1347 ± 365	92 ± 131	3510 ± 2976	1889 ± 2345	713 ± 913
CD62P	3359 ± 2379	1238 ± 1048	2422 ± 1434	2554 ± 2150	2711 ± 1144
CD68	6785 ± 6340	4057 ± 2521	10264 ± 2079	9222 ± 1330	14241 ± 8284
CD7	12818 ± 11803	248 ± 183	21735 ± 10579	18361 ± 13743	7253 ± 9038
CD8a	5769 ± 1814	1320 ± 126	9586 ± 4491	14936 ± 13862	7821 ± 8684
CLA	6263 ± 3294	555 ± 422	10387 ± 4155	6426 ± 2489	5279 ± 3777
CollagenTypIV	33428 ± 10596	14134 ± 2028	38919 ± 7520	18757 ± 2387	28032 ± 23629
Cytokeratin14	166410 ± 43572	25621 ± 2399	146584 ± 35695	101441 ± 48710	109461 ± 88733
FactorXIII	10509 ± 1127	5999 ± 299	8395 ± 6901	10920 ± 3613	9292 ± 8393
HLA-DR	85398 ± 8019	25171 ± 3888	53801 ± 29144	54449 ± 5162	60034 ± 29500
IL-22R	14697 ± 3401	3371 ± 3297	3263 ± 3010	3223 ± 1973	20364 ± 12477
IL-23R	13689 ± 1591	7474 ± 8842	8522 ± 5872	5819 ± 1997	881 ± 19
Ki67	6558 ± 732	1459 ± 729	3578 ± 5952	1637 ± 1624	9070 ± 9423
Podoplanin	13747 ± 11461	5224 ± 2406	24609 ± 18591	3808 ± 3432	11698 ± 7194
Propidiumjodid	80787 ± 40067	21756 ± 2276	71325 ± 22885	79193 ± 29819	62726 ± 38221
SNA1	68124 ± 3562	24136 ± 958	37118 ± 5849	27061 ± 6140	27683 ± 1183
STAT3	54922 ± 10032	18368 ± 4512	34380 ± 30940	10225 ± 7251	6105 ± 7097
TIA1	2027 ± 1191	468 ± 559	6068 ± 3058	2813 ± 2409	2547 ± 3162
Vimentin	46445 ± 9536	25935 ± 4287	47647 ± 11270	35509 ± 11346	38649 ± 22730

1.1.2 Einzelepitop-Expression der Epidermis

Tabelle 4: Mittelwerte und Standardabweichungen der Einzelepitop-Expression (PEN) für alle n=6 Patienten (Epidermis)

Epitop	APS	UPS	W02	W06	W12
Aktin	14 ± 18	593 ± 1942	114 ± 227	16 ± 31	9 ± 14
BCL2	10144 ± 11123	4161 ± 5446	5265 ± 5309	2773 ± 3479	3332 ± 3320
c-myc	26348 ± 15943	14665 ± 7781	12158 ± 5841	15680 ± 10094	14508 ± 5837
CCR6	422 ± 409	456 ± 524	312 ± 286	488 ± 463	657 ± 724
CD11a	1657 ± 2532	311 ± 738	656 ± 795	966 ± 1359	417 ± 709
CD11b	656 ± 962	302 ± 908	334 ± 898	1006 ± 1646	444 ± 911
CD120a	520 ± 328	418 ± 261	385 ± 209	517 ± 193	612 ± 763
CD120b	128 ± 174	39 ± 75	56 ± 89	121 ± 249	46 ± 74
CD138	74122 ± 57947	23715 ± 18563	39990 ± 28048	34542 ± 20442	34445 ± 27156
CD15	209 ± 305	91 ± 114	43 ± 65	365 ± 582	79 ± 69
CD1a	1924 ± 1947	1229 ± 696	1149 ± 1020	1335 ± 649	2081 ± 1817
CD2	1864 ± 2734	377 ± 804	889 ± 1045	906 ± 1113	726 ± 736
CD207	1712 ± 781	1491 ± 979	1631 ± 792	1819 ± 931	1732 ± 704
CD24	236 ± 416	122 ± 384	134 ± 381	396 ± 667	174 ± 388
CD28	842 ± 1957	65 ± 140	112 ± 164	184 ± 305	98 ± 150
CD29	25318 ± 20029	10870 ± 8924	13059 ± 9707	14368 ± 11309	13462 ± 8744
CD3	1357 ± 1948	315 ± 787	680 ± 940	1324 ± 2103	654 ± 930
CD31	65 ± 90	19 ± 26	65 ± 159	114 ± 279	16 ± 21
CD4	853 ± 1935	142 ± 352	203 ± 343	532 ± 1095	178 ± 342
CD44	32720 ± 26790	13240 ± 14843	25033 ± 19810	26311 ± 19421	22239 ± 19161
CD45	1691 ± 3431	138 ± 260	478 ± 529	952 ± 2112	303 ± 400
CD45RA	389 ± 556	157 ± 435	201 ± 427	327 ± 580	180 ± 427
CD45RO	1225 ± 2658	110 ± 338	338 ± 454	677 ± 1118	370 ± 593
CD52	170 ± 234	32 ± 49	35 ± 57	733 ± 2323	44 ± 46
CD54	3815 ± 7291	694 ± 2242	903 ± 2261	1582 ± 2968	892 ± 2227
CD56	78 ± 72	206 ± 397	189 ± 269	97 ± 166	73 ± 69
CD58	22727 ± 29162	8870 ± 10687	9457 ± 11601	10839 ± 12386	12057 ± 12777
CD62E	28 ± 49	15 ± 26	11 ± 16	71 ± 149	8 ± 13
CD62P	24 ± 42	19 ± 33	9 ± 25	68 ± 170	15 ± 31
CD68	2391 ± 2123	2942 ± 1852	2336 ± 2054	2665 ± 2095	2845 ± 2072
CD7	1418 ± 2370	239 ± 693	798 ± 970	1219 ± 1790	356 ± 680
CD8a	781 ± 836	272 ± 716	422 ± 695	515 ± 759	486 ± 716
CLA	1427 ± 1040	547 ± 916	888 ± 883	997 ± 873	1102 ± 980
CollagenTypIV	6023 ± 6318	3166 ± 4249	4682 ± 4307	6680 ± 6742	4106 ± 4129
Cytokeratin14	107565 ± 67297	44626 ± 43357	70157 ± 48349	80685 ± 57932	70904 ± 48757
FactorXIII	41 ± 51	25 ± 47	54 ± 65	41 ± 56	89 ± 134
HLA-DR	20605 ± 20876	7676 ± 9353	8928 ± 10573	11551 ± 12123	9062 ± 10188
IL-22R	14459 ± 7850	8934 ± 8231	8401 ± 8701	8427 ± 8480	9882 ± 8250
IL-23R	6100 ± 5465	4223 ± 5565	1763 ± 2053	4929 ± 3434	3303 ± 2493
Ki67	6195 ± 4482	2898 ± 4233	4510 ± 5396	3380 ± 4287	3379 ± 4382
Podoplanin	5653 ± 8701	1432 ± 2900	1304 ± 2834	5772 ± 11610	985 ± 2849
Propidiumjodid	35264 ± 17699	18423 ± 9595	24373 ± 12494	24919 ± 9855	26639 ± 13637
SNA1	14797 ± 18064	3790 ± 3062	6203 ± 4553	6428 ± 5696	4915 ± 3333
STAT3	25103 ± 20203	11634 ± 6559	7091 ± 6182	16391 ± 17967	10151 ± 6308
TIA1	150 ± 214	57 ± 100	106 ± 116	263 ± 594	70 ± 95
Vimentin	9553 ± 6738	4666 ± 5241	6456 ± 5356	7682 ± 5604	6550 ± 5297

Tabelle 5: Mittelwerte und Standardabweichungen der Einzelepitop-Expression (PEN) für die als Responder identifizierten n=4 Patienten (Epidermis)

Epitop	APS	UPS	W02	W06	W12
Aktin	14 ± 20	725 ± 2147	79 ± 198	18 ± 34	11 ± 15
BCL2	10153 ± 12435	3112 ± 3858	6272 ± 5376	3100 ± 3803	3795 ± 3525
c-myc	21716 ± 11316	15618 ± 6573	11975 ± 6511	13695 ± 6756	14531 ± 6258
CCR6	362 ± 383	425 ± 507	294 ± 303	338 ± 347	599 ± 751
CD11a	888 ± 1366	378 ± 808	786 ± 828	689 ± 869	456 ± 787
CD11b	520 ± 988	369 ± 1002	407 ± 988	823 ± 1562	528 ± 997
CD120a	402 ± 152	415 ± 223	389 ± 203	481 ± 192	396 ± 204
CD120b	115 ± 180	36 ± 80	67 ± 95	49 ± 83	51 ± 81
CD138	63847 ± 58692	25087 ± 20441	42368 ± 30086	31860 ± 21036	37770 ± 28769
CD15	140 ± 143	69 ± 65	52 ± 69	251 ± 572	90 ± 70
CD1a	1070 ± 478	1051 ± 637	1046 ± 1040	1273 ± 605	1961 ± 1913
CD2	1155 ± 1382	455 ± 878	1047 ± 1097	705 ± 855	800 ± 796
CD207	1444 ± 560	1368 ± 756	1381 ± 409	1548 ± 569	1752 ± 778
CD24	202 ± 415	149 ± 424	161 ± 420	264 ± 493	213 ± 423
CD28	255 ± 410	74 ± 155	135 ± 174	110 ± 148	109 ± 164
CD29	21508 ± 19211	11043 ± 9696	14426 ± 10163	12921 ± 10545	14428 ± 9460
CD3	923 ± 1340	381 ± 864	815 ± 996	820 ± 1190	744 ± 1015
CD31	39 ± 58	22 ± 28	79 ± 174	132 ± 308	17 ± 22
CD4	276 ± 447	172 ± 386	243 ± 370	234 ± 393	206 ± 376
CD44	28470 ± 27435	14558 ± 16108	25397 ± 20499	22655 ± 17474	24487 ± 20676
CD45	604 ± 716	162 ± 285	549 ± 562	356 ± 375	334 ± 433
CD45RA	305 ± 503	192 ± 478	242 ± 467	225 ± 469	210 ± 471
CD45RO	426 ± 805	131 ± 374	399 ± 484	428 ± 656	449 ± 633
CD52	104 ± 123	37 ± 53	41 ± 62	31 ± 45	46 ± 51
CD54	1992 ± 3429	848 ± 2477	1103 ± 2479	1099 ± 2462	1089 ± 2441
CD56	60 ± 68	251 ± 430	131 ± 172	55 ± 75	80 ± 72
CD58	21338 ± 32041	8607 ± 11928	10231 ± 12542	9950 ± 11797	13560 ± 13779
CD62E	30 ± 54	18 ± 28	13 ± 17	59 ± 154	9 ± 14
CD62P	28 ± 45	22 ± 36	11 ± 28	73 ± 189	18 ± 33
CD68	2589 ± 2242	3056 ± 1977	2570 ± 2220	2855 ± 2261	2784 ± 2297
CD7	684 ± 1124	290 ± 765	869 ± 1043	825 ± 1090	423 ± 742
CD8a	603 ± 819	327 ± 789	495 ± 755	457 ± 779	522 ± 793
CLA	1193 ± 875	635 ± 998	919 ± 910	991 ± 933	1050 ± 986
CollagenTypIV	5423 ± 6901	3387 ± 4717	4641 ± 4630	5317 ± 5444	4282 ± 4505
Cytokeratin14	94492 ± 66076	49034 ± 47216	73047 ± 50249	72626 ± 53643	76215 ± 52887
FactorXIII	36 ± 51	31 ± 50	48 ± 67	30 ± 51	101 ± 146
HLA-DR	17696 ± 22134	8740 ± 10028	9507 ± 11532	8591 ± 10306	9898 ± 11173
IL-22R	14406 ± 8693	9193 ± 9117	9910 ± 8960	9475 ± 9065	9266 ± 9078
IL-23R	4476 ± 4534	3621 ± 4995	1940 ± 2235	4111 ± 3188	3242 ± 2288
Ki67	6169 ± 5003	3018 ± 4719	5445 ± 5566	3860 ± 4613	3656 ± 4851
Podoplanin	5879 ± 9471	1733 ± 3155	1534 ± 3115	2957 ± 5922	1191 ± 3144
Propidiumjodid	31732 ± 14978	19265 ± 10451	25640 ± 13026	22966 ± 9890	28254 ± 14674
SNA1	12119 ± 19010	3803 ± 3257	6338 ± 4786	4956 ± 3955	5286 ± 3606
STAT3	18561 ± 15254	9889 ± 5852	7125 ± 6867	14722 ± 18468	10825 ± 6090
TIA1	141 ± 238	60 ± 110	114 ± 124	94 ± 141	66 ± 105
Vimentin	8562 ± 6559	5067 ± 5763	6538 ± 5642	6736 ± 5477	6861 ± 5732

Tabelle 6: Mittelwerte und Standardabweichungen der Einzelepitop-Expression (PEN) für die als Non-Responder identifizierten n=2 Patienten (Epidermis)

Epitop	APS	UPS	W02	W06	W12
Aktin	14 ± 14	9 ± 15	85 ± 199	10 ± 15	9 ± 15
BCL2	6090 ± 4748	5741 ± 6334	3414 ± 4295	3575 ± 4177	3561 ± 4190
c-myc	24524 ± 18619	14005 ± 8543	14748 ± 5704	18072 ± 11289	15157 ± 5987
CCR6	307 ± 377	279 ± 416	221 ± 209	442 ± 523	371 ± 505
CD11a	1946 ± 2952	486 ± 899	505 ± 889	1116 ± 1644	553 ± 865
CD11b	836 ± 1162	475 ± 1131	476 ± 1130	997 ± 1575	493 ± 1123
CD120a	628 ± 358	451 ± 242	433 ± 178	522 ± 159	781 ± 918
CD120b	96 ± 132	57 ± 91	43 ± 91	168 ± 307	48 ± 89
CD138	56179 ± 50507	26802 ± 23194	30159 ± 23544	35108 ± 24599	27357 ± 23655
CD15	210 ± 369	117 ± 135	63 ± 75	314 ± 418	70 ± 70
CD1a	2403 ± 2340	1336 ± 652	1216 ± 689	1216 ± 672	1505 ± 1133
CD2	2028 ± 3290	591 ± 965	634 ± 943	1101 ± 1331	696 ± 915
CD207	1763 ± 842	1514 ± 961	1717 ± 944	1798 ± 1098	1399 ± 352
CD24	300 ± 517	190 ± 480	193 ± 479	471 ± 784	190 ± 480
CD28	1090 ± 2453	100 ± 169	96 ± 172	241 ± 378	107 ± 168
CD29	22467 ± 18445	13218 ± 10420	12309 ± 10696	16301 ± 12422	12938 ± 10203
CD3	1417 ± 2213	476 ± 974	494 ± 966	1498 ± 2507	542 ± 944
CD31	70 ± 99	19 ± 24	17 ± 25	27 ± 30	21 ± 23
CD4	1206 ± 2396	222 ± 431	227 ± 428	756 ± 1344	236 ± 423
CD44	28697 ± 24091	15972 ± 18130	20568 ± 19575	26101 ± 22968	17348 ± 17313
CD45	2080 ± 4329	207 ± 312	244 ± 300	1237 ± 2660	246 ± 306
CD45RA	465 ± 651	246 ± 538	251 ± 535	469 ± 700	259 ± 531
CD45RO	1543 ± 3290	170 ± 422	185 ± 418	681 ± 1322	171 ± 422
CD52	160 ± 286	29 ± 50	27 ± 50	1139 ± 2910	36 ± 48
CD54	4512 ± 8897	1079 ± 2811	1080 ± 2810	2153 ± 3638	1082 ± 2810
CD56	85 ± 80	41 ± 68	168 ± 307	121 ± 202	53 ± 68
CD58	18043 ± 15001	12636 ± 11828	11471 ± 12666	14004 ± 14165	11277 ± 12397
CD62E	13 ± 17	9 ± 17	10 ± 16	45 ± 87	9 ± 17
CD62P	14 ± 31	14 ± 31	13 ± 32	25 ± 40	13 ± 32
CD68	3082 ± 2370	3348 ± 2181	3021 ± 2320	3171 ± 2243	3546 ± 2035
CD7	1720 ± 2849	374 ± 862	507 ± 869	1226 ± 2148	388 ± 855
CD8a	869 ± 975	425 ± 883	445 ± 875	639 ± 915	510 ± 852
CLA	1517 ± 1275	852 ± 1048	1023 ± 1041	1102 ± 987	1190 ± 1074
CollagenTypIV	5911 ± 5436	4038 ± 5238	4808 ± 5302	7080 ± 7877	4366 ± 5234
Cytokeratin14	94675 ± 71742	54217 ± 53239	63464 ± 53937	80548 ± 65341	60564 ± 50158
FactorXIII	50 ± 61	31 ± 59	54 ± 64	57 ± 65	41 ± 58
HLA-DR	16962 ± 16119	8160 ± 11884	9141 ± 11654	14440 ± 14412	8848 ± 11513
IL-22R	14314 ± 8055	12335 ± 8612	10576 ± 10037	11177 ± 9492	13730 ± 7991
IL-23R	6101 ± 5405	4251 ± 4732	2546 ± 2227	4729 ± 3360	3294 ± 2660
Ki67	5029 ± 5124	3899 ± 5153	3312 ± 5443	3574 ± 5322	3835 ± 5171
Podoplanin	2717 ± 4456	1416 ± 3582	1470 ± 3562	6661 ± 13756	1410 ± 3585
Propidiumjodid	31110 ± 20560	20674 ± 11580	21827 ± 11852	26123 ± 11914	22028 ± 10942
SNA1	11030 ± 11438	4425 ± 3598	4958 ± 3911	7087 ± 6571	4286 ± 3434
STAT3	23054 ± 22608	13039 ± 7200	9455 ± 5940	14300 ± 11611	9506 ± 6879
TIA1	115 ± 128	72 ± 121	80 ± 122	354 ± 741	86 ± 117
Vimentin	8780 ± 7874	5593 ± 6533	6515 ± 6664	8187 ± 7110	6248 ± 6460

1.1.3 Einzelepitop-Expression der dermalen Kapillaren

Tabelle 7: Mittelwerte und Standardabweichungen der Einzelepitop-Expression (PEN) für alle n=6 Patienten (Kapillaren)

Epitop	APS	UPS	W02	W06	W12
Aktin	8453 ± 4509	5363 ± 3988	8010 ± 4701	6363 ± 4783	6919 ± 4731
BCL2	281 ± 310	74 ± 64	709 ± 1394	74 ± 63	256 ± 452
c-myc	3162 ± 5261	993 ± 1698	2689 ± 3843	876 ± 1717	711 ± 1666
CCR6	167 ± 155	83 ± 95	89 ± 60	130 ± 128	104 ± 83
CD11a	1098 ± 895	360 ± 321	698 ± 562	669 ± 702	648 ± 446
CD11b	814 ± 520	640 ± 569	656 ± 538	1140 ± 1394	1303 ± 800
CD120a	17 ± 15	8 ± 12	16 ± 15	18 ± 21	23 ± 48
CD120b	363 ± 557	107 ± 59	155 ± 120	128 ± 112	354 ± 583
CD138	43 ± 69	34 ± 76	35 ± 29	17 ± 23	11 ± 21
CD15	352 ± 627	130 ± 164	147 ± 163	488 ± 1144	138 ± 124
CD1a	9 ± 15	37 ± 98	7 ± 15	9 ± 19	23 ± 44
CD2	1288 ± 953	445 ± 384	627 ± 456	601 ± 416	1532 ± 1774
CD207	49 ± 95	48 ± 107	39 ± 94	61 ± 122	62 ± 113
CD24	374 ± 646	125 ± 106	364 ± 382	538 ± 1155	385 ± 579
CD28	1197 ± 1036	242 ± 390	397 ± 442	532 ± 428	972 ± 1365
CD29	11565 ± 4842	6050 ± 5003	10330 ± 5132	8505 ± 4454	8670 ± 4626
CD3	1809 ± 1334	1030 ± 677	1349 ± 893	1537 ± 894	2183 ± 2266
CD31	7738 ± 4277	4537 ± 3608	6762 ± 4488	7408 ± 3715	8208 ± 5850
CD4	3610 ± 2980	1810 ± 2077	2120 ± 1935	2356 ± 2136	3733 ± 2427
CD44	3612 ± 2559	3080 ± 1603	3507 ± 1445	3483 ± 1616	3624 ± 1672
CD45	968 ± 858	242 ± 217	495 ± 363	536 ± 442	618 ± 677
CD45RA	502 ± 362	294 ± 127	320 ± 123	288 ± 91	359 ± 167
CD45RO	420 ± 436	111 ± 169	282 ± 235	343 ± 379	552 ± 960
CD52	1621 ± 1416	386 ± 642	560 ± 734	1001 ± 1535	1404 ± 2514
CD54	11912 ± 5923	5844 ± 4930	9144 ± 4987	8424 ± 4263	9049 ± 5779
CD56	365 ± 437	211 ± 154	217 ± 170	163 ± 158	246 ± 208
CD58	1814 ± 1349	1568 ± 1411	1148 ± 1187	1977 ± 1636	3114 ± 4526
CD62E	1480 ± 1372	362 ± 446	1534 ± 2203	1291 ± 1819	1088 ± 1276
CD62P	3677 ± 2525	2047 ± 1874	3556 ± 2179	3128 ± 1963	3116 ± 1755
CD68	2717 ± 2041	1835 ± 1324	2728 ± 1206	2287 ± 1626	2595 ± 1275
CD7	686 ± 823	307 ± 276	582 ± 588	643 ± 654	562 ± 438
CD8a	299 ± 151	268 ± 171	320 ± 163	273 ± 154	424 ± 415
CLA	274 ± 187	137 ± 100	254 ± 178	495 ± 884	244 ± 160
CollagenTypIV	9848 ± 4515	6448 ± 4160	11105 ± 5145	9815 ± 4030	9562 ± 4419
Cytokeratin14	11 ± 19	8 ± 15	6 ± 9	6 ± 9	6 ± 10
FactorXIII	327 ± 244	391 ± 305	529 ± 626	321 ± 245	851 ± 838
HLA-DR	8401 ± 2542	5687 ± 3280	7236 ± 3101	6887 ± 3716	6869 ± 2991
IL-22R	7 ± 13	15 ± 28	8 ± 13	12 ± 19	25 ± 47
IL-23R	112 ± 207	107 ± 275	57 ± 81	61 ± 101	191 ± 303
Ki67	7 ± 14	2 ± 4	10 ± 16	2 ± 5	8 ± 15
Podoplanin	4261 ± 1915	2876 ± 1483	3547 ± 1294	3180 ± 1556	3663 ± 1303
Propidiumjodid	8081 ± 3161	4574 ± 2804	7072 ± 3465	6475 ± 2847	7410 ± 3776
SNA1	12371 ± 6253	7256 ± 4351	11653 ± 5271	9399 ± 3942	9624 ± 4320
STAT3	105 ± 129	117 ± 132	84 ± 91	94 ± 158	63 ± 91
TIA1	338 ± 348	172 ± 118	341 ± 228	537 ± 1025	285 ± 265
Vimentin	7886 ± 3191	4193 ± 2402	7161 ± 3102	6860 ± 2348	5573 ± 2155

Tabelle 8: Mittelwerte und Standardabweichungen der Einzelepitop-Expression (PEN) für die als Responder identifizierten n=4 Patienten (Kapillaren)

Epitop	APS	UPS	W02	W06	W12
Aktin	8401 ± 4967	5541 ± 4404	8232 ± 5073	6243 ± 4310	6729 ± 4852
BCL2	266 ± 314	80 ± 66	860 ± 1513	85 ± 63	293 ± 496
c-myc	3791 ± 5670	1209 ± 1821	3207 ± 4095	1070 ± 1858	853 ± 1829
CCR6	157 ± 135	101 ± 97	94 ± 63	148 ± 135	107 ± 82
CD11a	920 ± 670	371 ± 356	736 ± 597	747 ± 761	714 ± 470
CD11b	820 ± 459	561 ± 474	768 ± 533	1254 ± 1507	1225 ± 848
CD120a	17 ± 17	9 ± 12	19 ± 16	19 ± 22	27 ± 52
CD120b	376 ± 617	103 ± 65	158 ± 123	110 ± 115	390 ± 646
CD138	37 ± 70	41 ± 83	30 ± 30	16 ± 23	13 ± 23
CD15	374 ± 689	147 ± 176	170 ± 172	533 ± 1271	148 ± 129
CD1a	11 ± 17	43 ± 109	8 ± 16	11 ± 21	28 ± 48
CD2	1212 ± 802	467 ± 411	678 ± 478	655 ± 442	1493 ± 1822
CD207	53 ± 105	57 ± 117	44 ± 105	74 ± 132	75 ± 121
CD24	414 ± 715	135 ± 114	327 ± 417	629 ± 1270	429 ± 638
CD28	1120 ± 944	282 ± 425	458 ± 469	504 ± 471	1112 ± 1482
CD29	11738 ± 5290	6832 ± 5244	10406 ± 5370	9157 ± 4528	8490 ± 4920
CD3	1622 ± 939	1087 ± 725	1331 ± 980	1391 ± 865	2160 ± 2513
CD31	7483 ± 3915	4986 ± 3876	7070 ± 4888	6968 ± 3792	8365 ± 6428
CD4	3201 ± 2203	1871 ± 2283	2264 ± 2117	2186 ± 2069	3444 ± 2498
CD44	3152 ± 1735	2831 ± 1546	3331 ± 1519	3714 ± 1480	3340 ± 1412
CD45	788 ± 537	252 ± 242	491 ± 372	584 ± 461	703 ± 725
CD45RA	382 ± 105	297 ± 126	331 ± 131	309 ± 80	361 ± 165
CD45RO	329 ± 315	127 ± 183	293 ± 255	388 ± 408	663 ± 1037
CD52	1551 ± 1493	428 ± 707	605 ± 795	1038 ± 1693	1590 ± 2759
CD54	11575 ± 5762	6461 ± 5274	9580 ± 5408	8551 ± 4615	9044 ± 6418
CD56	408 ± 471	206 ± 166	190 ± 158	187 ± 165	280 ± 215
CD58	1692 ± 1398	1510 ± 1372	1178 ± 1263	1844 ± 1799	3391 ± 4959
CD62E	1522 ± 1525	435 ± 465	1799 ± 2368	1489 ± 1963	1296 ± 1327
CD62P	3750 ± 2690	2226 ± 2014	3900 ± 2261	3093 ± 1832	3137 ± 1873
CD68	3058 ± 2119	2081 ± 1338	2750 ± 1318	2365 ± 1552	2633 ± 1354
CD7	497 ± 380	300 ± 305	503 ± 563	730 ± 698	597 ± 455
CD8a	290 ± 150	225 ± 157	306 ± 159	303 ± 149	459 ± 447
CLA	254 ± 113	139 ± 110	248 ± 175	582 ± 964	233 ± 141
CollagenTypIV	9156 ± 4348	6901 ± 4504	10903 ± 5602	10029 ± 4187	9368 ± 4369
Cytokeratin14	13 ± 21	9 ± 16	7 ± 10	7 ± 10	6 ± 11
FactorXIII	357 ± 255	310 ± 275	601 ± 673	337 ± 249	871 ± 930
HLA-DR	8130 ± 2740	6023 ± 3506	7234 ± 3393	7032 ± 3272	6913 ± 3282
IL-22R	9 ± 14	8 ± 15	9 ± 14	14 ± 20	31 ± 51
IL-23R	127 ± 227	131 ± 302	67 ± 86	70 ± 110	172 ± 305
Ki67	4 ± 6	2 ± 5	12 ± 17	3 ± 6	7 ± 15
Podoplanin	3831 ± 1660	2876 ± 1560	3556 ± 1325	3332 ± 1692	3961 ± 1254
Propidiumjodid	7999 ± 3111	4909 ± 3014	7447 ± 3600	6647 ± 2307	7657 ± 4018
SNA1	11581 ± 6466	7925 ± 4563	11552 ± 5812	9720 ± 4093	9517 ± 4800
STAT3	115 ± 139	112 ± 130	91 ± 97	114 ± 168	77 ± 96
TIA1	275 ± 204	198 ± 115	337 ± 250	631 ± 1121	259 ± 211
Vimentin	7537 ± 3334	4397 ± 2612	7166 ± 3281	7213 ± 2448	5864 ± 2129

Tabelle 9: Mittelwerte und Standardabweichungen der Einzelepitop-Expression (PEN) für die als Non-Responder identifizierten n=2 Patienten (Kapillaren)

Epitop	APS	UPS	W02	W06	W12
Aktin	7431 ± 4567	6251 ± 4569	6952 ± 4613	6921 ± 5693	7171 ± 4994
BCL2	176 ± 211	91 ± 75	85 ± 74	83 ± 77	102 ± 75
c-myc	1154 ± 2007	1064 ± 2054	1162 ± 2013	1060 ± 2057	1079 ± 2046
CCR6	147 ± 143	86 ± 83	106 ± 68	99 ± 70	112 ± 77
CD11a	920 ± 1012	465 ± 340	528 ± 376	468 ± 337	477 ± 332
CD11b	832 ± 543	892 ± 565	652 ± 490	785 ± 488	1080 ± 580
CD120a	15 ± 12	11 ± 14	12 ± 13	14 ± 13	11 ± 13
CD120b	151 ± 145	100 ± 44	104 ± 78	124 ± 74	119 ± 65
CD138	37 ± 47	16 ± 25	33 ± 29	23 ± 26	17 ± 25
CD15	145 ± 176	88 ± 92	85 ± 90	154 ± 158	101 ± 99
CD1a	7 ± 17	9 ± 18	7 ± 18	7 ± 18	7 ± 18
CD2	969 ± 958	603 ± 394	617 ± 387	606 ± 375	993 ± 1073
CD207	55 ± 120	47 ± 121	51 ± 120	46 ± 121	47 ± 121
CD24	143 ± 105	109 ± 95	238 ± 220	123 ± 108	140 ± 101
CD28	772 ± 1002	348 ± 462	366 ± 453	519 ± 434	428 ± 439
CD29	9882 ± 4792	7523 ± 5718	9653 ± 5150	8391 ± 5195	9508 ± 4919
CD3	1567 ± 1588	1030 ± 733	1218 ± 734	1436 ± 948	1462 ± 958
CD31	7153 ± 5107	5333 ± 4345	6151 ± 4047	7296 ± 4409	6759 ± 4144
CD4	3754 ± 3527	2636 ± 2219	2617 ± 2205	3089 ± 2410	3636 ± 2422
CD44	4068 ± 2717	3643 ± 1317	3673 ± 1158	3141 ± 1493	3844 ± 1693
CD45	774 ± 1044	324 ± 231	413 ± 292	358 ± 262	333 ± 231
CD45RA	548 ± 450	332 ± 105	327 ± 83	305 ± 108	351 ± 119
CD45RO	371 ± 500	144 ± 203	200 ± 200	173 ± 190	148 ± 201
CD52	933 ± 1152	437 ± 749	482 ± 759	618 ± 802	542 ± 794
CD54	10186 ± 6544	7226 ± 5745	8402 ± 5121	8594 ± 5164	8942 ± 5040
CD56	237 ± 177	256 ± 161	285 ± 183	205 ± 185	214 ± 177
CD58	1894 ± 1392	1740 ± 1522	1509 ± 1364	1954 ± 1309	1753 ± 1506
CD62E	851 ± 529	492 ± 513	580 ± 478	596 ± 487	524 ± 487
CD62P	3310 ± 1972	2708 ± 2036	2929 ± 1864	3293 ± 2212	3217 ± 1851
CD68	2314 ± 1385	2185 ± 1531	2727 ± 1196	2530 ± 1622	2669 ± 1265
CD7	675 ± 1007	333 ± 170	503 ± 466	307 ± 170	350 ± 247
CD8a	319 ± 141	355 ± 135	333 ± 149	262 ± 148	298 ± 150
CLA	247 ± 230	178 ± 103	222 ± 149	171 ± 104	225 ± 161
CollagenTypIV	10255 ± 5015	7813 ± 4734	9984 ± 4558	9081 ± 4500	9533 ± 4907
Cytokeratin14	6 ± 11	6 ± 11	6 ± 11	7 ± 11	7 ± 11
FactorXIII	381 ± 258	540 ± 259	384 ± 261	397 ± 265	542 ± 284
HLA-DR	8464 ± 3096	6909 ± 3592	7786 ± 3102	7498 ± 4257	7622 ± 3125
IL-22R	11 ± 16	23 ± 33	12 ± 16	11 ± 16	11 ± 16
IL-23R	46 ± 41	34 ± 39	36 ± 38	40 ± 35	113 ± 199
Ki67	9 ± 17	2 ± 5	2 ± 5	2 ± 5	6 ± 10
Podoplanin	4440 ± 1985	3492 ± 1480	3672 ± 1434	3383 ± 1410	3334 ± 1439
Propidiumjodid	7188 ± 3204	5651 ± 3002	6313 ± 2792	6404 ± 3496	6574 ± 2757
SNA1	11436 ± 5979	8101 ± 5393	10346 ± 4967	9159 ± 5044	9774 ± 4733
STAT3	93 ± 99	115 ± 122	91 ± 100	76 ± 106	76 ± 105
TIA1	326 ± 409	164 ± 135	251 ± 147	180 ± 128	262 ± 271
Vimentin	6957 ± 2777	5190 ± 2357	6295 ± 2383	5762 ± 1987	5474 ± 2312

1.1.4 Einzelepitop-Expression der extrakapillären Dermis

Tabelle 10: Mittelwerte und Standardabweichungen der Einzelepitop-Expression (PEN) für alle n=6 Patienten (extrakapilläre Dermis)

Epitop	APS	UPS	W02	W06	W12
Aktin	1457 ± 1825	475 ± 633	471 ± 626	512 ± 724	483 ± 663
BCL2	2228 ± 2305	738 ± 803	2842 ± 4905	1813 ± 2354	2604 ± 4254
c-myc	3476 ± 2488	2405 ± 2623	2684 ± 2382	2701 ± 2277	2390 ± 2152
CCR6	1410 ± 1549	577 ± 616	835 ± 712	2176 ± 2268	1421 ± 1654
CD11a	16175 ± 11708	4785 ± 6381	11258 ± 9795	15971 ± 17819	10825 ± 10912
CD11b	10069 ± 5294	7355 ± 6612	7534 ± 6575	11715 ± 6244	14175 ± 5712
CD120a	365 ± 653	104 ± 98	171 ± 161	532 ± 877	319 ± 532
CD120b	3610 ± 3121	1600 ± 935	2010 ± 1271	2475 ± 1409	5360 ± 8394
CD138	240 ± 325	230 ± 388	260 ± 248	169 ± 185	161 ± 178
CD15	1568 ± 1582	388 ± 308	728 ± 1067	2089 ± 3338	445 ± 317
CD1a	124 ± 177	466 ± 1434	62 ± 84	59 ± 56	256 ± 446
CD2	13964 ± 10760	4797 ± 6749	9367 ± 7623	12141 ± 10975	13963 ± 16820
CD207	532 ± 684	499 ± 993	550 ± 713	364 ± 468	618 ± 733
CD24	2562 ± 2172	1670 ± 1097	2529 ± 1389	3473 ± 2232	2617 ± 1699
CD28	10025 ± 9035	2565 ± 4437	4904 ± 5305	8742 ± 8743	10207 ± 15154
CD29	6581 ± 2981	3383 ± 2314	4593 ± 1448	5135 ± 2600	4652 ± 3229
CD3	16046 ± 13327	6616 ± 6904	12010 ± 9557	18170 ± 16393	18062 ± 23952
CD31	488 ± 312	410 ± 345	386 ± 349	905 ± 1105	619 ± 549
CD4	15117 ± 8665	6467 ± 8550	10964 ± 8060	16482 ± 15775	16833 ± 18847
CD44	37679 ± 9802	30830 ± 9347	41315 ± 13068	45300 ± 15703	39729 ± 9470
CD45	14925 ± 13543	3238 ± 4263	8796 ± 7831	13937 ± 16298	9173 ± 10550
CD45RA	5766 ± 3008	2292 ± 2402	3871 ± 2593	4723 ± 3279	4302 ± 3403
CD45RO	7779 ± 6073	1892 ± 3647	6200 ± 7485	8128 ± 8566	9772 ± 17417
CD52	10775 ± 10643	3036 ± 5242	6432 ± 7756	10610 ± 12079	10188 ± 16093
CD54	23777 ± 19199	7542 ± 8814	9721 ± 7802	15509 ± 14309	13451 ± 10625
CD56	2643 ± 1170	2205 ± 694	2642 ± 904	2451 ± 1052	2718 ± 1003
CD58	1197 ± 1301	1244 ± 2088	648 ± 1004	3924 ± 8586	3659 ± 6704
CD62E	48 ± 51	26 ± 43	90 ± 140	57 ± 97	33 ± 47
CD62P	197 ± 382	96 ± 110	112 ± 114	95 ± 99	79 ± 98
CD68	4980 ± 3179	3499 ± 3287	5605 ± 3392	5532 ± 3226	4765 ± 3185
CD7	6592 ± 4358	2374 ± 3426	6225 ± 5105	9549 ± 9466	7137 ± 9142
CD8a	4780 ± 2775	2662 ± 3033	4116 ± 3068	5614 ± 3894	6490 ± 7924
CLA	5126 ± 3268	1735 ± 1370	3901 ± 2883	4439 ± 2840	3552 ± 1676
CollagenTypIV	10745 ± 5773	7737 ± 4402	12345 ± 7168	13300 ± 6765	11240 ± 8792
Cytokeratin14	365 ± 539	541 ± 574	503 ± 623	499 ± 537	475 ± 510
FactorXIII	8180 ± 4840	7031 ± 4491	10671 ± 5704	8733 ± 4963	10471 ± 5185
HLA-DR	43941 ± 12821	26894 ± 11282	36748 ± 13850	38007 ± 16535	34251 ± 8557
IL-22R	17 ± 22	16 ± 22	16 ± 19	62 ± 118	59 ± 83
IL-23R	360 ± 588	352 ± 814	228 ± 309	498 ± 552	298 ± 220
Ki67	99 ± 107	47 ± 72	145 ± 314	73 ± 73	118 ± 166
Podoplanin	1476 ± 1319	2371 ± 2624	766 ± 451	1417 ± 1350	1116 ± 1122
Propidiumjodid	28313 ± 14123	13419 ± 10548	23522 ± 13736	25360 ± 14791	24337 ± 13543
SNA1	16787 ± 8806	14300 ± 9038	14240 ± 4839	11145 ± 3526	10764 ± 3188
STAT3	278 ± 395	284 ± 513	310 ± 370	245 ± 410	99 ± 157
TIA1	1831 ± 1443	781 ± 1249	1301 ± 1385	1960 ± 1866	1619 ± 1616
Vimentin	24340 ± 6737	17674 ± 5620	25999 ± 8345	25544 ± 8014	20839 ± 9313

Tabelle 11: Mittelwerte und Standardabweichungen der Einzelepitop-Expression (PEN) für die als Responder identifizierten n=4 Patienten (extrakapilläre Dermis)

Epitop	APS	UPS	W02	W06	W12
Aktin	1113 ± 1148	498 ± 697	538 ± 675	455 ± 700	484 ± 701
BCL2	2326 ± 2559	872 ± 831	3377 ± 5317	2038 ± 2549	2997 ± 4652
c-myc	3384 ± 2695	2823 ± 2729	3017 ± 2480	2686 ± 2400	2410 ± 2391
CCR6	1476 ± 1646	704 ± 611	920 ± 767	2215 ± 2514	1498 ± 1778
CD11a	16174 ± 12890	5752 ± 6717	12324 ± 10245	15826 ± 19490	12401 ± 11551
CD11b	10611 ± 5710	8560 ± 6739	8860 ± 6568	10770 ± 5914	14183 ± 6212
CD120a	422 ± 716	125 ± 98	190 ± 173	380 ± 702	379 ± 576
CD120b	3826 ± 3413	1875 ± 789	2160 ± 1361	2061 ± 992	6117 ± 9194
CD138	244 ± 347	281 ± 415	281 ± 272	187 ± 198	178 ± 194
CD15	1579 ± 1707	441 ± 310	861 ± 1145	1556 ± 3197	437 ± 280
CD1a	136 ± 195	561 ± 1586	73 ± 89	68 ± 58	311 ± 480
CD2	14910 ± 11539	5729 ± 7179	10345 ± 7875	12501 ± 12018	15730 ± 18142
CD207	620 ± 733	605 ± 1078	625 ± 770	420 ± 503	700 ± 784
CD24	2621 ± 2402	1957 ± 996	2463 ± 1476	2774 ± 1749	2650 ± 1894
CD28	10952 ± 9783	3110 ± 4772	5599 ± 5609	8682 ± 9685	12084 ± 16280
CD29	6865 ± 3144	3988 ± 2103	4789 ± 1529	5366 ± 2490	4197 ± 2617
CD3	17054 ± 14493	7842 ± 7087	13139 ± 10075	17396 ± 18172	20328 ± 26152
CD31	534 ± 329	481 ± 343	436 ± 369	857 ± 1207	696 ± 568
CD4	14907 ± 8196	7500 ± 9202	11907 ± 8347	16224 ± 17392	18687 ± 20553
CD44	35811 ± 8699	33154 ± 8464	40931 ± 13318	43120 ± 11802	37949 ± 7378
CD45	14870 ± 14775	3873 ± 4497	9393 ± 8196	13730 ± 17371	10642 ± 11203
CD45RA	5689 ± 3080	2690 ± 2496	4206 ± 2632	4562 ± 3552	4640 ± 3688
CD45RO	7451 ± 6558	2275 ± 3964	6977 ± 8050	7861 ± 9261	11756 ± 18836
CD52	11768 ± 11639	3673 ± 5642	7213 ± 8336	10774 ± 13225	11861 ± 17468
CD54	24986 ± 19642	8933 ± 9225	11119 ± 7996	15448 ± 15259	13982 ± 11805
CD56	2528 ± 1090	2202 ± 776	2709 ± 975	2366 ± 910	2624 ± 957
CD58	1305 ± 1421	1464 ± 2267	760 ± 1086	4009 ± 9523	4406 ± 7260
CD62E	49 ± 56	32 ± 46	98 ± 153	61 ± 107	35 ± 51
CD62P	239 ± 414	114 ± 114	131 ± 118	106 ± 107	91 ± 105
CD68	5174 ± 3116	3944 ± 3471	5746 ± 3489	5591 ± 3526	5122 ± 3406
CD7	6599 ± 4477	2865 ± 3630	6308 ± 5101	9968 ± 10436	8327 ± 9769
CD8a	4986 ± 3022	3102 ± 3209	4431 ± 3210	5664 ± 4343	7417 ± 8542
CLA	5505 ± 3495	2075 ± 1277	4069 ± 2904	4435 ± 3168	3496 ± 1667
CollagenTypIV	10523 ± 6090	8400 ± 4628	12754 ± 7872	12131 ± 6169	9627 ± 5217
Cytokeratin14	442 ± 570	634 ± 598	608 ± 645	602 ± 542	529 ± 544
FactorXIII	7720 ± 5279	7263 ± 4963	10541 ± 6255	9030 ± 5145	9393 ± 5128
HLA-DR	44354 ± 13488	30246 ± 9462	37808 ± 13481	35432 ± 10086	34327 ± 8910
IL-22R	21 ± 24	19 ± 24	19 ± 20	58 ± 128	69 ± 89
IL-23R	387 ± 647	429 ± 890	256 ± 334	451 ± 580	256 ± 224
Ki67	72 ± 99	51 ± 80	175 ± 343	78 ± 80	56 ± 77
Podoplanin	1154 ± 613	2144 ± 2762	780 ± 495	1279 ± 1314	834 ± 492
Propidiumjodid	29898 ± 14990	15303 ± 10818	25832 ± 13871	26406 ± 15468	25713 ± 14220
SNA1	14883 ± 8584	14612 ± 10055	14200 ± 5388	10793 ± 3336	10187 ± 2869
STAT3	267 ± 441	331 ± 561	336 ± 397	296 ± 440	95 ± 164
TIA1	1968 ± 1573	954 ± 1328	1514 ± 1454	1668 ± 1590	1853 ± 1702
Vimentin	24643 ± 7488	18241 ± 6122	26167 ± 8538	26029 ± 8016	18444 ± 4757

Tabelle 12: Mittelwerte und Standardabweichungen der Einzelepitop-Expression (PEN) für die als Non-Responder identifizierten n=2 Patienten (extrakapilläre Dermis)

Epitop	APS	UPS	W02	W06	W12
Aktin	1342 ± 2159	588 ± 768	531 ± 788	702 ± 865	619 ± 798
BCL2	1196 ± 785	723 ± 757	810 ± 713	914 ± 753	924 ± 662
c-myc	3242 ± 2616	2279 ± 2760	2469 ± 2683	2920 ± 2656	2787 ± 2507
CCR6	954 ± 845	637 ± 734	765 ± 631	1207 ± 883	944 ± 808
CD11a	10697 ± 8152	6196 ± 7810	7920 ± 7554	10823 ± 9150	7140 ± 7138
CD11b	11183 ± 5800	9554 ± 7374	9450 ± 7480	13565 ± 6371	13042 ± 5515
CD120a	136 ± 95	111 ± 111	131 ± 97	455 ± 845	121 ± 102
CD120b	1971 ± 1136	1321 ± 1096	1600 ± 918	2456 ± 1733	1776 ± 891
CD138	219 ± 244	156 ± 235	202 ± 212	180 ± 224	179 ± 220
CD15	776 ± 757	386 ± 248	379 ± 246	1625 ± 2539	480 ± 301
CD1a	58 ± 67	47 ± 65	41 ± 66	43 ± 65	40 ± 66
CD2	9207 ± 7492	6605 ± 8050	7852 ± 7623	9439 ± 7458	8152 ± 7553
CD207	337 ± 564	304 ± 580	359 ± 567	329 ± 568	368 ± 571
CD24	2056 ± 1014	1508 ± 1208	2207 ± 1148	3291 ± 2494	2105 ± 970
CD28	5326 ± 4872	3685 ± 5310	4160 ± 5085	6229 ± 5307	4155 ± 5017
CD29	5144 ± 1912	3816 ± 2708	4689 ± 1783	4798 ± 2338	5542 ± 3135
CD3	10425 ± 8114	7452 ± 8753	9117 ± 8143	13324 ± 9631	9384 ± 7792
CD31	469 ± 393	416 ± 432	435 ± 416	710 ± 537	468 ± 422
CD4	13363 ± 10378	9293 ± 9763	10692 ± 9192	13813 ± 9319	11198 ± 8541
CD44	37908 ± 8704	30561 ± 8251	37038 ± 8824	40485 ± 17320	38378 ± 10283
CD45	8552 ± 7355	4325 ± 5126	5963 ± 5361	8464 ± 8840	4949 ± 4696
CD45RA	4575 ± 2954	2971 ± 2844	3504 ± 2624	4385 ± 2579	3623 ± 2405
CD45RO	5244 ± 5302	2647 ± 4499	3370 ± 4423	5264 ± 5697	2839 ± 4390
CD52	5674 ± 6004	3920 ± 6511	4706 ± 6314	6692 ± 7090	4633 ± 6274
CD54	13718 ± 13148	8846 ± 10093	9460 ± 9601	12990 ± 10465	11641 ± 8677
CD56	2471 ± 1223	2203 ± 829	2237 ± 866	2378 ± 1210	2465 ± 1132
CD58	1055 ± 1141	925 ± 1198	893 ± 1217	1864 ± 2096	937 ± 1188
CD62E	34 ± 51	23 ± 52	38 ± 60	34 ± 50	29 ± 52
CD62P	105 ± 117	106 ± 116	111 ± 112	116 ± 108	110 ± 113
CD68	5017 ± 3959	4271 ± 3949	5263 ± 3809	5349 ± 3527	4746 ± 3641
CD7	5003 ± 4345	3175 ± 4130	4800 ± 4692	5319 ± 4248	3638 ± 3846
CD8a	4313 ± 3235	3406 ± 3679	3984 ± 3459	4751 ± 3217	3875 ± 3389
CLA	3045 ± 1093	2127 ± 1587	2966 ± 1785	3341 ± 1202	3155 ± 1395
CollagenTypIV	10366 ± 5458	8369 ± 5426	10012 ± 4996	12314 ± 7462	12296 ± 10595
Cytokeratin14	515 ± 638	546 ± 613	519 ± 635	520 ± 634	576 ± 601
FactorXIII	8912 ± 5264	7694 ± 5333	9200 ± 5535	8097 ± 5657	10361 ± 6196
HLA-DR	36873 ± 9365	28223 ± 13073	33986 ± 10727	39019 ± 19041	34539 ± 7835
IL-22R	16 ± 23	17 ± 23	17 ± 23	40 ± 50	20 ± 21
IL-23R	197 ± 137	130 ± 117	159 ± 106	332 ± 337	268 ± 167
Ki67	113 ± 113	59 ± 87	53 ± 90	64 ± 86	163 ± 197
Podoplanin	1491 ± 1612	1625 ± 1559	857 ± 344	1239 ± 987	1338 ± 1315
Propidiumjodid	21067 ± 10326	16426 ± 12497	18766 ± 11102	20915 ± 11452	20199 ± 10816
SNA1	14931 ± 7540	11372 ± 2582	11807 ± 2922	11324 ± 3291	11504 ± 3143
STAT3	199 ± 195	127 ± 182	161 ± 208	110 ± 187	140 ± 188
TIA1	1378 ± 1385	1032 ± 1543	1128 ± 1477	1966 ± 2101	1192 ± 1451
Vimentin	20964 ± 4433	18720 ± 4866	21613 ± 6513	21074 ± 6285	23433 ± 10767

1.1.5 Einzelepitop-Expression der basalen Epidermis

Tabelle 13: Mittelwerte und Standardabweichungen der Einzelepitop-Expression (PEN) für alle n=6 Patienten (basale Epidermis)

Epitop	APS	UPS	W02	W06	W12
Aktin	19 ± 24	522 ± 1705	114 ± 226	16 ± 31	10 ± 15
BCL2	2994 ± 2651	1050 ± 968	2335 ± 2784	1031 ± 727	1275 ± 648
c-myc	11282 ± 7644	5952 ± 7137	6597 ± 5999	10175 ± 10963	7762 ± 6886
CCR6	178 ± 219	120 ± 185	158 ± 149	253 ± 262	236 ± 291
CD11a	906 ± 1614	170 ± 417	458 ± 568	643 ± 1023	232 ± 401
CD11b	300 ± 509	176 ± 516	200 ± 509	305 ± 554	238 ± 502
CD120a	104 ± 68	115 ± 113	120 ± 118	170 ± 137	233 ± 382
CD120b	90 ± 124	19 ± 46	40 ± 71	82 ± 176	28 ± 47
CD138	20115 ± 19412	5878 ± 4314	12682 ± 12565	9071 ± 5708	8856 ± 7308
CD15	61 ± 65	45 ± 87	19 ± 35	153 ± 255	26 ± 37
CD1a	220 ± 188	169 ± 178	216 ± 430	234 ± 300	429 ± 632
CD2	910 ± 1619	188 ± 398	565 ± 761	466 ± 636	337 ± 362
CD207	256 ± 178	273 ± 302	326 ± 191	417 ± 403	402 ± 439
CD24	104 ± 213	67 ± 214	78 ± 212	129 ± 237	116 ± 232
CD28	505 ± 1306	37 ± 88	80 ± 126	104 ± 174	56 ± 94
CD29	20936 ± 17984	7959 ± 7842	11522 ± 9188	12659 ± 11103	11539 ± 8405
CD3	769 ± 1246	175 ± 460	473 ± 671	838 ± 1454	368 ± 542
CD31	82 ± 107	23 ± 36	70 ± 159	115 ± 257	21 ± 32
CD4	609 ± 1461	117 ± 328	179 ± 324	389 ± 800	139 ± 323
CD44	17000 ± 15697	5632 ± 6793	12991 ± 11944	13315 ± 11650	10170 ± 8794
CD45	793 ± 1860	64 ± 159	331 ± 469	668 ± 1697	107 ± 167
CD45RA	262 ± 394	103 ± 269	147 ± 267	232 ± 415	120 ± 263
CD45RO	515 ± 1244	63 ± 195	234 ± 313	264 ± 428	176 ± 279
CD52	69 ± 117	12 ± 27	27 ± 52	631 ± 2013	19 ± 25
CD54	2521 ± 4774	446 ± 1436	623 ± 1473	1170 ± 2224	593 ± 1426
CD56	57 ± 55	190 ± 385	175 ± 264	86 ± 168	63 ± 54
CD58	6019 ± 9940	2087 ± 4148	2364 ± 4472	4502 ± 7223	4080 ± 6068
CD62E	22 ± 50	8 ± 17	9 ± 17	5 ± 13	5 ± 13
CD62P	13 ± 25	19 ± 32	10 ± 25	36 ± 89	13 ± 26
CD68	1632 ± 1470	2009 ± 1282	1708 ± 1377	1760 ± 1569	1822 ± 1507
CD7	733 ± 1359	111 ± 316	557 ± 780	769 ± 1200	172 ± 314
CD8a	397 ± 423	145 ± 340	256 ± 334	300 ± 404	267 ± 337
CLA	513 ± 488	180 ± 327	333 ± 328	418 ± 366	361 ± 308
CollagenTypIV	5734 ± 5741	3454 ± 4418	4924 ± 4486	6902 ± 6986	4282 ± 4299
Cytokeratin14	39426 ± 24412	18966 ± 14213	31083 ± 20907	32777 ± 20516	29683 ± 16210
FactorXIII	43 ± 74	29 ± 73	58 ± 82	41 ± 75	70 ± 115
HLA-DR	9306 ± 9822	3517 ± 4666	4371 ± 5266	5646 ± 6150	4325 ± 5144
IL-22R	2055 ± 1389	1684 ± 1568	1643 ± 1793	1643 ± 1489	1991 ± 1406
IL-23R	982 ± 1114	997 ± 1695	211 ± 491	714 ± 948	404 ± 657
Ki67	1839 ± 1082	997 ± 912	1784 ± 2186	1323 ± 1096	1373 ± 1199
Podoplanin	5263 ± 8401	1285 ± 2656	1233 ± 2612	5468 ± 10918	915 ± 2620
Propidiumjodid	14363 ± 8710	8025 ± 3923	12079 ± 7747	11745 ± 4870	12369 ± 5938
SNA1	12080 ± 13284	3758 ± 3004	6156 ± 4444	6234 ± 5436	4757 ± 3057
STAT3	2241 ± 2322	2572 ± 3588	986 ± 1496	1123 ± 1277	989 ± 1008
TIA1	82 ± 107	35 ± 60	72 ± 77	103 ± 206	35 ± 53
Vimentin	5466 ± 4007	2867 ± 3003	4055 ± 3117	4733 ± 3444	3751 ± 3151

Tabelle 14: Mittelwerte und Standardabweichungen der Einzelpepitop-Expression (PEN) für die als Responder identifizierten n=4 Patienten (basale Epidermis)

Epitop	APS	UPS	W02	W06	W12
Aktin	17 ± 27	638 ± 1884	81 ± 198	19 ± 34	12 ± 16
BCL2	2587 ± 2730	900 ± 656	2788 ± 2900	1091 ± 790	1460 ± 558
c-myc	9796 ± 7677	6850 ± 7600	7264 ± 6481	7650 ± 7794	8505 ± 7466
CCR6	143 ± 185	128 ± 203	148 ± 150	174 ± 180	273 ± 312
CD11a	400 ± 615	206 ± 457	554 ± 589	400 ± 514	250 ± 445
CD11b	260 ± 555	216 ± 568	243 ± 559	254 ± 561	277 ± 553
CD120a	87 ± 36	97 ± 78	132 ± 129	126 ± 85	123 ± 120
CD120b	75 ± 114	18 ± 50	48 ± 76	30 ± 52	31 ± 52
CD138	16218 ± 17146	6044 ± 4459	14109 ± 13588	7734 ± 5286	9873 ± 7640
CD15	61 ± 66	24 ± 37	23 ± 37	48 ± 68	32 ± 39
CD1a	201 ± 150	120 ± 156	245 ± 475	145 ± 130	485 ± 690
CD2	467 ± 546	225 ± 436	672 ± 808	332 ± 416	374 ± 392
CD207	234 ± 105	178 ± 105	313 ± 199	271 ± 181	450 ± 476
CD24	114 ± 235	82 ± 237	93 ± 234	99 ± 234	141 ± 252
CD28	115 ± 178	42 ± 98	96 ± 134	64 ± 98	61 ± 103
CD29	16730 ± 15325	8435 ± 8589	12636 ± 9750	10981 ± 9870	12586 ± 9023
CD3	452 ± 637	212 ± 506	571 ± 709	469 ± 716	419 ± 593
CD31	48 ± 63	27 ± 38	86 ± 173	131 ± 283	22 ± 35
CD4	176 ± 359	142 ± 361	217 ± 350	183 ± 360	165 ± 355
CD44	13955 ± 14299	6048 ± 7435	13736 ± 12777	10897 ± 9774	11410 ± 9331
CD45	206 ± 203	75 ± 175	396 ± 500	176 ± 225	127 ± 180
CD45RA	186 ± 298	126 ± 296	176 ± 289	146 ± 288	136 ± 292
CD45RO	140 ± 253	74 ± 216	278 ± 331	167 ± 249	215 ± 296
CD52	35 ± 36	14 ± 29	32 ± 56	23 ± 31	22 ± 28
CD54	1315 ± 2159	545 ± 1586	762 ± 1611	730 ± 1588	724 ± 1561
CD56	44 ± 44	231 ± 418	121 ± 171	41 ± 53	66 ± 55
CD58	6133 ± 11075	2108 ± 4637	2828 ± 4864	3260 ± 5588	4873 ± 6491
CD62E	24 ± 56	10 ± 18	10 ± 18	6 ± 15	6 ± 15
CD62P	15 ± 28	22 ± 35	12 ± 28	44 ± 97	16 ± 28
CD68	1764 ± 1561	2081 ± 1377	1866 ± 1476	1939 ± 1677	1893 ± 1674
CD7	319 ± 499	134 ± 348	645 ± 840	484 ± 655	202 ± 342
CD8a	286 ± 373	172 ± 374	301 ± 355	240 ± 369	280 ± 374
CLA	417 ± 354	210 ± 358	380 ± 342	371 ± 345	371 ± 343
CollagenTypIV	5010 ± 6157	3730 ± 4889	4909 ± 4846	5469 ± 5693	4534 ± 4702
Cytokeratin14	34744 ± 20802	20453 ± 15454	33833 ± 21975	28939 ± 18521	31996 ± 17101
FactorXIII	41 ± 80	36 ± 80	56 ± 89	38 ± 80	80 ± 126
HLA-DR	8093 ± 10316	3899 ± 5061	4888 ± 5726	4025 ± 5146	4907 ± 5551
IL-22R	2195 ± 1450	1585 ± 1727	1987 ± 1811	1717 ± 1644	1846 ± 1525
IL-23R	666 ± 939	792 ± 1559	245 ± 542	379 ± 540	473 ± 713
Ki67	1648 ± 1081	864 ± 964	2151 ± 2267	1424 ± 1138	1384 ± 1340
Podoplanin	5449 ± 9153	1553 ± 2893	1447 ± 2870	2862 ± 5799	1105 ± 2890
Propidiumjodid	12553 ± 5645	8217 ± 4354	13163 ± 8198	10598 ± 4635	13280 ± 6235
SNA1	9919 ± 13818	3841 ± 3212	6347 ± 4694	4799 ± 3720	5156 ± 3266
STAT3	1788 ± 2338	1803 ± 2977	897 ± 1540	1012 ± 1395	1074 ± 1080
TIA1	75 ± 119	41 ± 66	83 ± 81	46 ± 63	38 ± 59
Vimentin	4845 ± 3790	3055 ± 3308	4235 ± 3349	4093 ± 3196	4141 ± 3331

Tabelle 15: Mittelwerte und Standardabweichungen der Einzelpepitop-Expression (PEN) für die als Non-Responder identifizierten n=2 Patienten (basale Epidermis)

Epitop	APS	UPS	W02	W06	W12
Aktin	18 ± 17	10 ± 17	86 ± 198	11 ± 17	10 ± 17
BCL2	2246 ± 1944	1360 ± 1061	952 ± 686	1085 ± 575	993 ± 636
c-myc	10842 ± 8755	6254 ± 7897	6734 ± 7567	11860 ± 12758	6969 ± 7453
CCR6	146 ± 213	74 ± 77	107 ± 121	224 ± 305	70 ± 66
CD11a	1173 ± 1959	266 ± 510	272 ± 507	761 ± 1257	308 ± 491
CD11b	414 ± 621	277 ± 641	278 ± 640	430 ± 671	295 ± 633
CD120a	121 ± 75	126 ± 114	89 ± 26	175 ± 153	279 ± 468
CD120b	68 ± 115	29 ± 56	24 ± 57	114 ± 219	27 ± 55
CD138	15020 ± 19075	5729 ± 4302	6051 ± 3776	8573 ± 6014	5484 ± 4169
CD15	44 ± 53	67 ± 105	27 ± 42	206 ± 307	27 ± 42
CD1a	179 ± 216	204 ± 173	115 ± 120	274 ± 370	143 ± 134
CD2	1117 ± 2008	294 ± 478	312 ± 469	594 ± 771	335 ± 456
CD207	238 ± 217	337 ± 362	247 ± 150	444 ± 494	190 ± 85
CD24	122 ± 265	104 ± 269	108 ± 267	180 ± 289	104 ± 268
CD28	698 ± 1642	57 ± 108	54 ± 109	134 ± 214	62 ± 108
CD29	19384 ± 18903	9657 ± 9530	9854 ± 9520	13769 ± 12384	9945 ± 9293
CD3	889 ± 1520	265 ± 571	271 ± 569	976 ± 1759	301 ± 556
CD31	92 ± 123	25 ± 39	25 ± 40	37 ± 44	29 ± 38
CD4	912 ± 1803	183 ± 406	185 ± 405	558 ± 981	189 ± 403
CD44	14728 ± 15419	7028 ± 7989	8708 ± 8542	12868 ± 12943	7265 ± 7777
CD45	1076 ± 2344	99 ± 195	108 ± 191	920 ± 2137	101 ± 194
CD45RA	334 ± 474	162 ± 331	166 ± 329	337 ± 500	175 ± 325
CD45RO	724 ± 1553	98 ± 244	104 ± 242	294 ± 527	95 ± 245
CD52	81 ± 148	19 ± 32	18 ± 33	979 ± 2522	19 ± 32
CD54	2969 ± 5861	698 ± 1798	698 ± 1797	1598 ± 2724	699 ± 1797
CD56	60 ± 61	28 ± 36	146 ± 298	109 ± 206	40 ± 43
CD58	4033 ± 5202	3028 ± 5052	2537 ± 5237	5342 ± 8256	2604 ± 5203
CD62E	11 ± 18	7 ± 16	7 ± 16	8 ± 16	7 ± 16
CD62P	16 ± 31	16 ± 31	15 ± 31	15 ± 31	15 ± 31
CD68	2114 ± 1641	2299 ± 1515	2101 ± 1602	2090 ± 1623	2248 ± 1488
CD7	913 ± 1672	173 ± 392	217 ± 388	757 ± 1443	181 ± 388
CD8a	477 ± 496	227 ± 415	235 ± 411	381 ± 480	278 ± 395
CLA	540 ± 591	282 ± 381	302 ± 373	449 ± 425	359 ± 347
CollagenTypIV	6179 ± 5642	4240 ± 5480	5034 ± 5505	7424 ± 8103	4509 ± 5453
Cytokeratin14	36232 ± 27368	22455 ± 16945	24291 ± 16601	33246 ± 22208	24453 ± 15976
FactorXIII	56 ± 90	42 ± 92	62 ± 91	57 ± 91	49 ± 89
HLA-DR	7679 ± 7863	3974 ± 5898	4046 ± 5815	7158 ± 7300	3948 ± 5849
IL-22R	2243 ± 1630	2444 ± 1477	1861 ± 1887	2210 ± 1588	2590 ± 1455
IL-23R	984 ± 1160	846 ± 1440	315 ± 607	933 ± 1137	325 ± 603
Ki67	1674 ± 1221	1358 ± 968	941 ± 1104	1152 ± 1067	1280 ± 954
Podoplanin	2548 ± 4176	1307 ± 3293	1360 ± 3273	6196 ± 12822	1300 ± 3295
Propidiumjodid	13722 ± 10446	9335 ± 4295	9348 ± 4365	12121 ± 5184	9653 ± 4139
SNA1	9621 ± 8959	4358 ± 3420	4906 ± 3650	7017 ± 6234	4238 ± 3291
STAT3	1699 ± 1838	2201 ± 3447	872 ± 947	941 ± 715	651 ± 594
TIA1	68 ± 70	40 ± 67	44 ± 66	140 ± 255	43 ± 65
Vimentin	5175 ± 4655	3392 ± 3719	3741 ± 3727	4989 ± 4334	3386 ± 3769

1.1.6 Einzelepitop-Expression der Th17-Zellen

Tabelle 16: Mittelwerte und Standardabweichungen der Einzelepitop-Expression (PEN) für alle n=6 Patienten (Th17-Zellen)

Epitop	APS	UPS	W02	W06	W12
Aktin	39 ± 70	13 ± 18	15 ± 18	33 ± 60	73 ± 142
BCL2	289 ± 234	159 ± 246	253 ± 277	646 ± 889	675 ± 1009
c-myc	90 ± 236	78 ± 239	82 ± 238	102 ± 244	80 ± 238
CCR6	423 ± 418	209 ± 396	309 ± 372	1206 ± 1563	781 ± 1031
CD11a	1232 ± 1263	697 ± 1199	917 ± 1118	2441 ± 3128	1647 ± 1641
CD11b	352 ± 541	308 ± 562	309 ± 562	426 ± 541	814 ± 819
CD120a	32 ± 83	26 ± 84	27 ± 84	30 ± 83	35 ± 84
CD120b	185 ± 308	59 ± 161	84 ± 160	198 ± 254	635 ± 1232
CD138	91 ± 171	53 ± 163	55 ± 162	59 ± 161	54 ± 163
CD15	9 ± 14	2 ± 5	4 ± 5	14 ± 22	4 ± 5
CD1a	51 ± 86	36 ± 82	35 ± 82	45 ± 81	87 ± 121
CD2	1221 ± 1258	727 ± 1253	936 ± 1171	2202 ± 2329	1947 ± 1987
CD207	128 ± 266	112 ± 271	121 ± 268	178 ± 287	200 ± 276
CD24	12 ± 12	8 ± 12	11 ± 13	24 ± 31	12 ± 11
CD28	1004 ± 1130	510 ± 993	671 ± 951	1824 ± 2322	1567 ± 1891
CD29	248 ± 212	121 ± 164	137 ± 153	310 ± 462	261 ± 184
CD3	1368 ± 1468	745 ± 1283	986 ± 1193	2574 ± 3068	1997 ± 2046
CD31	41 ± 67	18 ± 31	22 ± 29	34 ± 36	110 ± 168
CD4	1324 ± 1453	737 ± 1300	944 ± 1215	2273 ± 2448	1987 ± 2083
CD44	1185 ± 1004	744 ± 1088	978 ± 980	2343 ± 2813	1603 ± 1259
CD45	1113 ± 1088	614 ± 1067	834 ± 989	2327 ± 2967	1561 ± 1534
CD45RA	267 ± 278	146 ± 261	173 ± 250	439 ± 504	346 ± 339
CD45RO	718 ± 867	343 ± 773	502 ± 751	1693 ± 2456	1312 ± 1867
CD52	916 ± 1098	528 ± 1093	703 ± 1050	2060 ± 3029	1529 ± 1751
CD54	982 ± 1067	519 ± 955	622 ± 913	1863 ± 2585	1273 ± 1252
CD56	28 ± 37	9 ± 14	12 ± 14	41 ± 70	20 ± 21
CD58	269 ± 399	149 ± 262	148 ± 263	453 ± 818	648 ± 987
CD62E	10 ± 17	7 ± 18	9 ± 17	11 ± 19	21 ± 33
CD62P	12 ± 21	10 ± 21	11 ± 21	12 ± 22	23 ± 30
CD68	297 ± 463	216 ± 478	260 ± 462	540 ± 678	477 ± 634
CD7	664 ± 723	395 ± 767	573 ± 732	1767 ± 2499	1112 ± 1211
CD8a	318 ± 363	226 ± 392	282 ± 374	720 ± 879	653 ± 729
CLA	314 ± 270	231 ± 314	291 ± 286	641 ± 776	443 ± 308
CollagenTypIV	101 ± 137	53 ± 87	66 ± 80	180 ± 301	169 ± 174
Cytokeratin14	172 ± 399	133 ± 404	136 ± 403	141 ± 401	135 ± 403
FactorXIII	62 ± 53	42 ± 55	52 ± 54	179 ± 244	205 ± 299
HLA-DR	1159 ± 1045	691 ± 1002	864 ± 915	1908 ± 2377	1428 ± 1120
IL-22R	85 ± 257	81 ± 258	81 ± 258	83 ± 258	85 ± 257
IL-23R	42 ± 97	9 ± 18	9 ± 18	20 ± 23	56 ± 103
Ki67	8 ± 13	6 ± 13	6 ± 13	10 ± 16	7 ± 13
Podoplanin	101 ± 173	66 ± 165	69 ± 163	161 ± 220	97 ± 172
Propidiumjodid	1138 ± 1133	691 ± 1141	870 ± 1058	1957 ± 2445	1672 ± 1570
SNA1	339 ± 394	137 ± 199	197 ± 181	254 ± 178	246 ± 192
STAT3	34 ± 52	16 ± 39	16 ± 39	33 ± 51	18 ± 39
TIA1	113 ± 138	63 ± 138	76 ± 133	160 ± 223	151 ± 163
Vimentin	783 ± 913	416 ± 791	556 ± 746	1292 ± 1459	790 ± 829

Tabelle 17: Mittelwerte und Standardabweichungen der Einzelpepitop-Expression (PEN) für die als Responder identifizierten n=4 Patienten (Th17-Zellen)

Epitop	APS	UPS	W02	W06	W12
Aktin	43 ± 77	14 ± 19	18 ± 18	38 ± 66	74 ± 155
BCL2	301 ± 253	194 ± 261	297 ± 288	744 ± 959	799 ± 1083
c-myc	105 ± 261	96 ± 263	99 ± 262	125 ± 267	98 ± 263
CCR6	415 ± 415	255 ± 427	353 ± 399	1309 ± 1713	852 ± 1116
CD11a	1333 ± 1376	844 ± 1290	1046 ± 1197	2754 ± 3393	1906 ± 1701
CD11b	408 ± 589	367 ± 611	376 ± 605	485 ± 584	912 ± 863
CD120a	39 ± 91	32 ± 93	32 ± 92	34 ± 92	43 ± 92
CD120b	210 ± 339	71 ± 177	97 ± 176	220 ± 276	765 ± 1339
CD138	92 ± 186	65 ± 180	67 ± 179	71 ± 178	65 ± 180
CD15	11 ± 15	3 ± 5	5 ± 5	12 ± 24	5 ± 6
CD1a	58 ± 94	41 ± 90	42 ± 90	53 ± 88	106 ± 126
CD2	1328 ± 1365	881 ± 1347	1071 ± 1255	2456 ± 2507	2202 ± 2091
CD207	149 ± 291	135 ± 297	147 ± 292	209 ± 311	229 ± 297
CD24	13 ± 13	10 ± 13	13 ± 14	27 ± 34	13 ± 11
CD28	1079 ± 1238	618 ± 1077	786 ± 1021	2025 ± 2534	1825 ± 2004
CD29	253 ± 217	145 ± 173	163 ± 158	365 ± 498	260 ± 158
CD3	1491 ± 1598	901 ± 1380	1125 ± 1277	2872 ± 3337	2262 ± 2154
CD31	48 ± 73	22 ± 33	27 ± 31	39 ± 39	120 ± 184
CD4	1436 ± 1585	890 ± 1402	1080 ± 1307	2507 ± 2659	2249 ± 2199
CD44	1265 ± 1082	899 ± 1153	1111 ± 1029	2640 ± 3050	1787 ± 1274
CD45	1178 ± 1185	741 ± 1150	940 ± 1060	2624 ± 3217	1778 ± 1601
CD45RA	286 ± 305	174 ± 283	200 ± 270	504 ± 537	388 ± 356
CD45RO	741 ± 951	419 ± 843	581 ± 813	1873 ± 2696	1558 ± 1992
CD52	1000 ± 1202	640 ± 1190	806 ± 1139	2357 ± 3299	1744 ± 1862
CD54	1065 ± 1149	625 ± 1034	747 ± 972	2117 ± 2808	1433 ± 1313
CD56	21 ± 30	11 ± 15	15 ± 14	48 ± 76	24 ± 21
CD58	313 ± 433	176 ± 285	179 ± 283	519 ± 898	789 ± 1046
CD62E	12 ± 19	9 ± 19	10 ± 19	12 ± 21	23 ± 36
CD62P	14 ± 23	12 ± 23	13 ± 23	15 ± 23	25 ± 32
CD68	325 ± 507	264 ± 521	297 ± 506	624 ± 727	570 ± 669
CD7	693 ± 790	477 ± 833	639 ± 790	2008 ± 2721	1290 ± 1270
CD8a	358 ± 393	267 ± 426	314 ± 405	825 ± 947	761 ± 766
CLA	346 ± 287	278 ± 331	334 ± 298	750 ± 824	484 ± 303
CollagenTypIV	111 ± 150	63 ± 94	72 ± 87	213 ± 327	143 ± 111
Cytokeratin14	192 ± 441	163 ± 445	165 ± 444	170 ± 443	165 ± 444
FactorXIII	62 ± 57	50 ± 58	62 ± 55	203 ± 266	247 ± 318
HLA-DR	1251 ± 1132	834 ± 1062	988 ± 964	2179 ± 2570	1597 ± 1131
IL-22R	103 ± 284	99 ± 285	99 ± 285	101 ± 284	104 ± 283
IL-23R	48 ± 107	11 ± 19	11 ± 19	17 ± 24	64 ± 113
Ki67	8 ± 14	7 ± 15	8 ± 14	12 ± 17	7 ± 15
Podoplanin	90 ± 178	80 ± 181	82 ± 180	173 ± 240	119 ± 185
Propidiumjodid	1249 ± 1225	834 ± 1225	1003 ± 1129	2297 ± 2600	1900 ± 1629
SNA1	322 ± 428	164 ± 212	224 ± 188	276 ± 181	279 ± 193
STAT3	36 ± 56	20 ± 43	20 ± 43	40 ± 54	22 ± 42
TIA1	127 ± 150	77 ± 150	88 ± 145	188 ± 239	173 ± 172
Vimentin	822 ± 999	499 ± 859	634 ± 805	1430 ± 1582	867 ± 879

Tabelle 18: Mittelwerte und Standardabweichungen der Einzelpepitop-Expression (PEN) für die als Non-Responder identifizierten n=2 Patienten (Th17-Zellen)

Epitop	APS	UPS	W02	W06	W12
Aktin	24 ± 20	20 ± 19	19 ± 20	21 ± 19	37 ± 46
BCL2	311 ± 240	244 ± 279	259 ± 265	301 ± 257	277 ± 258
c-myc	128 ± 296	120 ± 299	121 ± 298	121 ± 299	120 ± 299
CCR6	448 ± 486	318 ± 472	350 ± 453	531 ± 515	451 ± 497
CD11a	1296 ± 1257	1084 ± 1384	1170 ± 1328	1369 ± 1265	1212 ± 1315
CD11b	495 ± 646	477 ± 659	467 ± 667	512 ± 638	573 ± 640
CD120a	41 ± 105	41 ± 105	42 ± 104	43 ± 104	41 ± 105
CD120b	107 ± 194	89 ± 200	94 ± 198	115 ± 198	102 ± 197
CD138	108 ± 202	83 ± 204	83 ± 203	84 ± 203	84 ± 203
CD15	4 ± 6	4 ± 6	4 ± 6	9 ± 9	4 ± 6
CD1a	58 ± 98	56 ± 99	53 ± 100	56 ± 99	53 ± 101
CD2	1335 ± 1323	1132 ± 1446	1218 ± 1388	1426 ± 1308	1352 ± 1371
CD207	182 ± 327	176 ± 330	175 ± 331	184 ± 326	193 ± 324
CD24	14 ± 13	13 ± 14	14 ± 13	16 ± 12	14 ± 13
CD28	985 ± 1085	800 ± 1171	838 ± 1147	1057 ± 1091	910 ± 1124
CD29	248 ± 167	188 ± 174	190 ± 171	202 ± 158	260 ± 198
CD3	1376 ± 1354	1154 ± 1485	1247 ± 1425	1494 ± 1328	1372 ± 1412
CD31	31 ± 33	28 ± 35	28 ± 35	32 ± 32	47 ± 50
CD4	1370 ± 1380	1149 ± 1507	1232 ± 1452	1485 ± 1357	1367 ± 1437
CD44	1373 ± 1038	1151 ± 1200	1245 ± 1125	1424 ± 1005	1360 ± 1109
CD45	1178 ± 1121	956 ± 1233	1046 ± 1180	1227 ± 1141	1112 ± 1172
CD45RA	273 ± 280	227 ± 304	236 ± 298	263 ± 286	265 ± 293
CD45RO	709 ± 891	533 ± 938	574 ± 917	785 ± 920	591 ± 912
CD52	968 ± 1236	822 ± 1309	883 ± 1277	1022 ± 1226	975 ± 1266
CD54	972 ± 1055	809 ± 1118	814 ± 1114	1005 ± 1053	956 ± 1073
CD56	28 ± 37	11 ± 17	11 ± 17	14 ± 15	11 ± 17
CD58	246 ± 293	234 ± 302	227 ± 308	271 ± 288	229 ± 306
CD62E	11 ± 22	11 ± 22	11 ± 22	12 ± 21	14 ± 21
CD62P	15 ± 26	15 ± 26	15 ± 26	15 ± 26	19 ± 25
CD68	382 ± 559	333 ± 580	360 ± 566	378 ± 556	349 ± 571
CD7	763 ± 845	618 ± 906	689 ± 873	805 ± 851	699 ± 872
CD8a	378 ± 434	351 ± 454	378 ± 442	409 ± 418	386 ± 440
CLA	400 ± 298	356 ± 338	379 ± 318	393 ± 299	425 ± 311
CollagenTypIV	95 ± 92	83 ± 98	91 ± 94	90 ± 93	163 ± 206
Cytokeratin14	233 ± 495	209 ± 503	211 ± 502	213 ± 501	210 ± 503
FactorXIII	76 ± 53	61 ± 61	61 ± 61	79 ± 53	64 ± 59
HLA-DR	1269 ± 947	1069 ± 1102	1142 ± 1039	1252 ± 937	1246 ± 1015
IL-22R	128 ± 322	127 ± 323	127 ± 323	128 ± 323	127 ± 323
IL-23R	16 ± 21	12 ± 22	12 ± 22	21 ± 23	17 ± 23
Ki67	11 ± 16	9 ± 16	10 ± 16	10 ± 16	11 ± 16
Podoplanin	142 ± 208	100 ± 203	102 ± 202	130 ± 199	100 ± 203
Propidiumjodid	1247 ± 1185	1078 ± 1300	1142 ± 1252	1187 ± 1209	1248 ± 1226
SNA1	321 ± 221	207 ± 223	224 ± 211	246 ± 205	230 ± 210
STAT3	31 ± 48	24 ± 49	24 ± 48	25 ± 48	24 ± 49
TIA1	113 ± 157	99 ± 166	105 ± 162	109 ± 159	113 ± 160
Vimentin	804 ± 880	641 ± 938	688 ± 912	821 ± 880	756 ± 906

