- 20

Epitope Sequence Identity Matrix <mark>100</mark> 71 81 71 71 61 71 68 71 74 71 65 71 59 26 29 32 19 23 35 32 29 26 29 32 35 32 29 29 26 26 19 23 26 32 29 35 32 35 23 23 26 26 26 CTLA-4 | 7su0 ID 1 56 | 35 | 27 | 27 | 15 | 23 | 28 | 32 | 30 | 28 | 27 | 26 | 23 | 23 | 31 | 31 | 27 | 27 | 31 | 28 | 23 | 23 | 27 | 27 | 31 | 23 | CTLA-4 | 7su0_ID_2 CTLA-4 | 6rp8 ID 1 CTLA-4 | 5tru_ID_1 88 89 88 100 64 92 88 80 84 84 76 84 50 40 28 28 16 28 28 29 26 28 28 24 24 24 28 28 28 24 24 28 28 32 24 30 28 29 29 24 25 31 30 32 29 CTLA-4 | 7su1 61 | 69 | 68 | 65 | 64 | 100 | 71 | 70 | 74 | 72 | 75 | 77 | 71 | 41 | 30 | 27 | 27 | 21 | 32 | 28 | 29 | 26 | 24 | 32 | 22 | 25 | 26 | 32 | 33 | 27 | 28 | 28 | 26 | 26 | 30 | 30 | 32 | 26 | 26 | 26 | 24 | 25 | 25 | 23 | 22 | 23 | 22 | 24 | 21 CTLA-4 | 5tru ID 2 83 75 83 50 38 33 33 21 29 28 29 30 24 33 22 21 25 25 25 29 29 27 28 29 30 3 3 3 29 21 30 28 29 29 25 25 31 30 32 29 CTLA-4 | 6rp8 ID 2 83 | 83 | 88 | 50 | 39 | 30 | 30 | 17 | 30 | 28 | 29 | 26 | 24 | 30 | 26 | 22 | 26 | 26 | 30 | 35 | 30 | 32 | 31 | 26 | 26 | 30 | 30 | 30 | 32 | 100 80 79 78 79 53 35 30 30 17 26 28 29 26 24 30 22 22 26 30 30 30 30 27 28 28 28 26 26 30 30 30 30 22 26 24 25 25 26 22 31 30 32 29 72 84 84 80 100 92 88 96 53 36 32 32 20 28 31 32 26 24 32 26 24 32 26 24 32 26 29 28 31 32 26 29 29 79 92 100 92 96 50 33 25 29 12 25 24 25 26 24 25 22 21 21 21 25 33 36 32 CTLA-4 | 5xj3 ID 2 CTLA-4 | 5xj3 ID 3 92 100 92 50 30 27 27 14 27 24 25 26 24 27 22 23 18 27 32 32 32 27 28 28 18 23 27 27 36 27 22 21 21 21 21 23 19 27 26 28 25 96 92 100 50 38 29 29 17 29 28 29 26 24 29 26 21 25 25 29 33 30 32 31 25 25 29 29 33 25 22 21 25 25 21 22 31 30 32 29 CTLA-4 | 5xj3 ID 4 CTLA-4 | 9dq4 26 | 35 | 36 | 38 | 40 | 30 | 38 | 39 | 35 | 36 | 33 | 30 | 38 | 25 | PD-1 | 8gy5_ID_1 32 27 29 31 28 27 33 30 30 30 32 29 27 29 19 26 91 100 45 77 66 68 52 45 68 48 45 50 55 55 64 73 72 76 59 59 19 | 15 | 18 | 19 | 16 | 21 | 21 | 17 | 17 | 20 | 12 | 14 | 17 | 19 | 17 | 55 | 45 | 100 | 58 | 38 | 36 | 33 | 28 | 56 | 33 | 25 | 74 | 32 | 28 | 33 | 33 | 36 | 34 | 43 | 43 | 50 | 45 | PD-1 | 5ggr_ID_1 <mark>100</mark> 55 57 48 41 79 48 40 63 50 47 57 57 56 59 58 58 23 | 23 | 25 | 27 | 28 | 32 | 29 | 30 | 26 | 28 | 25 | 27 | 29 | 16 | 26 86 77 58 35 | 28 | 31 | 31 | 28 | 28 | 28 | 28 | 28 | 31 | 24 | 24 | 28 | 22 | 28 | 62 | 66 | 38 | 55 | 100 | 90 | 72 | 76 PD-1 | 5ggs_ID_1 64 | 68 | 36 | 57 | 90 | 100 26 | 27 | 29 | 31 | 28 | 32 | 33 | 30 | 30 | 32 | 25 | 27 | 29 | 19 | 17 | 73 | 68 | 56 | 79 | 48 | 50 | 41 | 34 | 100 | 44 | 35 | 53 | 36 | 33 | 43 | 50 | 48 | 52 | 69 | 69 | 80 | 75 | 27 | 26 | 15 | 14 PD-1 | 8gy5 ID 2 26 | 26 | 25 | 26 | 22 | 22 | 22 | 26 | 22 | 26 | 22 | 22 | 26 | 22 | 19 | 52 | 48 | 33 | 48 | 69 | 71 | 81 | 72 | 44 <mark>100</mark> 56 37 63 48 56 70 70 69 30 33 48 52 22 19 22 24 21 21 30 19 26 30 26 29 19 | 23 | 21 | 23 | 20 | 25 | 21 | 22 | 22 | 20 | 21 | 23 | 21 | 22 | 22 | 41 | 45 | 25 | 40 | 48 | 50 | 67 | 62 | 35 | 56 25 PD-1 | 7bxa ID 1 23 | 23 | 25 | 27 | 24 | 26 | 25 | 26 | 26 | 28 | 21 | 18 | 25 | 22 | 30 | 59 | 50 | 74 | 63 | 41 | 39 | 37 | 31 | 53 | 37 | 25 <mark>100</mark> 36 | 32 | 38 | 37 | 40 | 38 | 37 | 37 | 55 | 55 | 23 | 26 | 19 | 17 | 18 | 18 | 27 | 19 | 23 | 22 | 24 | 21 PD-1 | 5jxe ID 1 PD-1 | 5jxe ID 2 29 | 27 | 29 | 31 | 28 | 33 | 29 | 35 | 30 | 32 | 29 | 32 | 33 | 22 | 30 | 64 | 64 | 33 | 57 | 69 | 71 | 56 | 52 | 43 | 56 | 52 | 38 | 59 | 76 70 63 50 70 47 37 53 60 67 100 83 93 43 43 63 63 30 27 27 PD-1 | 5b8c ID 1 35 | 27 | 30 | 30 | 27 | 27 | 27 | 30 | 27 | 30 | 27 | 27 | 30 | 25 | 23 | 67 | 73 | 33 | 57 | 83 | 87 24 69 76 34 59 86 86 93 83 100 45 45 66 66 31 28 28 28 31 31 24 28 34 38 34 38 PD-1 | 5b8c ID 3 69 30 25 37 27 33 43 43 40 45 PD-1 | 7cu5 | ID 1 23 | 23 | 25 | 27 | 24 | 26 | 29 | 26 | 26 | 28 | 21 | 18 | 25 | 16 | 17 | 55 | 59 | 43 | 58 | 38 | 39 | 26 | 24 100 92 65 60 18 21 11 10 11 11 19 | 19 | 20 | 18 23 | 23 | 25 | 27 | 24 | 26 | 29 | 26 | 26 | 28 | 21 | 23 | 25 | 19 | 17 | 55 | 59 | 43 | 58 | 38 | 39 | 30 | 28 | 69 | 33 | 30 | 37 | 32 | 39 | 43 | 43 | 40 | 45 92 100 65 65 18 16 11 10 11 11 23 12 19 19 20 18 PD-1 | 7cu5 ID 2 26 | 27 | 29 | 31 | 28 | 30 | 33 | 30 | 30 | 32 | 25 | 27 | 29 | 19 | 22 86 86 50 90 62 | 64 | 52 | 45 | **80** | 48 | 40 | 55 | 50 | 50 | 62 | 63 | 64 | 66 | 65 | 65 <mark>| 100 | 90 |</mark> 36 | 35 | **19** | PD-1 | 7wvm | ID | 1 18 26 | 27 | 29 | 31 | 28 | 30 | 33 | 30 | 30 | 32 | 25 | 27 | 29 | 19 | 22 82 82 45 80 59 61 52 45 **75** | 52 | 40 | 55 | 45 | 50 | 57 | 63 | 60 | 66 | 60 | 65 90 100 32 | 30 | 19 | 17 18 | 18 | 32 | 19 | 27 | 30 | 28 | 29 18 | 18 | 36 | 32 | <mark>100 | 86 | 52 | 48 | 50 | 50 | 50 | 47 | 27 | 30 | 28 | 2</mark>9 16 | 23 | 21 | 23 | 24 | 26 | 21 | 22 | 22 | 24 | 25 | 27 | 25 | 22 | 22 | 32 | 32 | 21 | 32 | 28 | 29 | 22 | 24 | 26 | 19 | 30 | 26 | 27 | 32 | 29 | 27 | 32 | 28 | 21 | 16 | 35 | 30 PD-L1 | 5x8m 11 11 | 18 | 18 | 50 | 50 18 18 50 50 11 | 11 93 93 96 100 61 81 25 25 25 25 19 | 23 | 21 | 23 | 24 | 23 | 25 | 26 | 26 | 20 | 21 | 23 | 21 | 22 | 26 | 32 | 27 | 18 | 32 | 28 | 25 | 30 | 28 | 25 | 30 | 28 | 23 | 30 | 32 | 27 | 32 | 27 | 32 | 27 | 28 | 24 | 18 | 23 | 27 | 32 | 50 | 50 | 63 | 62 | 61 | 61 | 100 | 56 | 23 | 22 | 20 | 21 28 | 25 | 25 | 22 | 25 | 22 | 25 | 22 | 22 | 22 | 25 | 19 | 22 | 25 | 25 | 22 | 22 | 12 | 19 | 28 | 28 | 25 | 25 | 16 | 19 | 19 | 19 | 19 | 22 | 22 | 28 | 28 | 28 | 12 | 12 | 19 | 19 | PD-L1 | 5xxy 35 | 35 | 29 | 31 | 31 | 23 | 31 | 27 | 31 | 31 | 35 | 27 | 31 | 25 | 19 | 27 | 31 | 19 | 23 | 34 | 36 | 33 | 31 | 23 | 26 | 19 | 23 | 27 | 35 | 31 | 33 | 38 | 34 | 19 | 19 | 27 | 27 | 27 | 27 | 27 | 26 | 24 | 25 | 25 | 23 | 28 | 35 | 33 | 29 | 30 | 30 | 22 | 30 | 26 | 30 | 30 | 33 | 26 | 30 | 25 | 22 | 30 | 33 | 19 | 26 | 38 | 39 | 37 | 34 | 22 | 30 | 22 | 22 | 26 | 37 | 33 | 37 | 41 | 38 | 19 | 19 | 30 | 30 | 30 | 30 | 26 | 28 | 29 | 25 | 22 | 28 TIM3 | 6txz ID 2 TIM3 | 6txz ID 3 35 | 35 | 29 | 31 | 32 | 24 | 32 | 28 | 32 | 32 | 36 | 28 | 32 | 25 | 20 | 28 | 32 | 20 | 24 | 34 | 36 | 33 | 31 | 24 | 26 | 20 | 24 | 24 | 36 | 32 | 33 | 40 | 34 | 20 | 20 | 28 | 28 | 28 | 28 | 28 | 26 | 24 | 32 | 25 | 29 | 25 | 21 | 29 | 32 | 18 | 25 | 38 | 39 | 36 | 34 | 21 | 29 | 21 | 21 | 25 | 36 | 32 | 37 | 18 CILAA SKS 102 CTLAN SHOW CTLANA SHOW 801 801 188 103 CTLA/A Oddis PD. 1 898 10 3 PD-1 TOSM ID 2 CTLA-A TOUT 80. J. Cth. CTLA. A GOOD D CTLRA GOOS ID'L CTLAN SHO 60, 1800 ID. PD. TOM D PD. 1896 10.1 4D. 1508C D. PD-1 Tous ID'A 4011/248/D) TM3 1697 10 7 TIMB GAY ID'Y CTLAA SHUJD' 807/808/D) PD-1 Tota ID? AD' LOYO'D' 801/84e 10) 80. 184e 10. A 401/808CID;3 PD. Tunnill's CTLAA SHUJI SOU LINNE II 8D7/808C/ TIM3 672 1