**Table S1 The antibodies used in this study**

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Antibody** | **Clone** | **Company** |
| **Anti-Mouse** | CD1d | 1B1 | BD |
| CD3 | 145-2C11 | BD |
| CD11c | HL3 | BD |
| CD40 | 3/23 | BD |
| CD44 | 1M7 | BD |
| CD45 | 30-F11 | BD |
| CD54 | 3E2 | BD |
| CD80 | 6-10A1 | BD |
| CD106 | 429(MVCM.A) | BD |
| IFN-g | XMG1.2 | BD |
| TNF-α | MP6-XT22 | BD |
| pSTAT1 | 4a  | BD |
| pSTAT4 | 38/p-Stat4  | BD |
| pSTAT5 | 47/Stat5 | BD |
| CD4 | GK1.5 | Biolegend |
| CD8 | 53-6.7 | Biolegend |
| CD11b | M1/70 | Biolegend |
| CD31 | MEC13.3 | Biolegend |
| CD62L | MEL-14 | Biolegend |
| CD69 | F1.2F3 | Biolegend |
| CD70 | FR70 | Biolegend |
| CD86 | GL-1 | Biolegend |
| CD103 | 2E7 | Biolegend |
| CD107a | 1D4B | Biolegend |
| CXCR3 | CXCR3-173 | Biolegend |
| Lag-3 | C9B7W | Biolegend |
| TIM3 | B8.2C12 | Biolegend |
| SiglecH | 551 | Biolegend |
| CD45.1 | A20 | eBioscience |
| CD137 | 17B5 | eBioscience |
| F4/80 | BM8 | eBioscience |
| PD-1 | RMP1-30 | eBioscience |
| MHC Class II | M5/114.15.2 | eBioscience |
| Foxp3 | FJK-16s | eBioscience |
| IL-15Ra | BAF551 | R&D |
| CXCL10 | AF-466-NA | R&D |
| CD54 | 3E2 | BD |
| CD106 | 429(MVCM.A) | BD |
| **Anti-Human** | CD1d | 51.1 | Biolegend |
| CD8 | RPA-T8 | Biolegend |
| human invariant NKT Cell | 6B11 | Biolegend |
| IFN-γ  | B27 | Biolegend |
| Vα24 | C15 | Beckman Coulter |
| Vβ11 | C21 | Beckman Coulter |
| CD3 | UCHT1 | eBioscience |
| **Western Blotting** | TPP-2 | H-150 | Santa Cruz  |
| WT1 | C-19 | Santa Cruz  |

**Table S2 The specific Primer sequences used for real-time PCR**

|  |  |  |
| --- | --- | --- |
| **gene** | **5’-primer** | **3’-primer** |
| CCL17 | tgcttctggggacttttctg | gaatggcccctttgaagtaa |
| CCL22 | tcttgctgtggcaattcaga | Gagggtgacggatgtagtcc |
| IL12a | ccatcagcagatcattctagacaa | cgccattatgattcagagactg |
| IL15 | cagctcagagaggtcaggaaa | catgaagaggcagtgctttg |
| IL27 | catggcatcacctctctgac | aagggccgaagtgtggta |
| PA28 | gggtggcaattcaggaga | ctacagcgtcccctcgttc |
| TAP1 | tttcctgaagaacccagcag | ccactaatggactcgcacac |
| TAP2 | ggtggcctgctctccttc | ccgtacatgtaaaccaggttcc |
| CXCL9 | cttttcctcttgggcatcat | gcatcgtgcattccttatca |
| CXCL10 | gctgccgtcattttctgc | tctcactggcccgtcatc |
| CXCL11 | gctgctgagatgaacaggaa | ccctgtttgaacataaggaagc |
| HPRT1 | tcctcctcagaccgctttt | cctggttcatcatcgctaatc |

**Table S3 TCRβ deep sequencing of OVA-tetramer+ CD8 T cells in spleen and TIL**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **TRBV** | **TRBD** | **TRBJ** | **CDR3 aa seq.** | **Rank** | **Freq. (%)** |
| spleen-1 | TRBV13-1 | TRBD1 | TRBJ2-7 | CASSDAGTKYF | 1 | 67.05  |
| TRBV13-3 | TRBD1 | TRBJ1-1 | CASRAYTEVFF | 2 | 8.39  |
| TRBV31 | TRBD2 | TRBJ2-7 | CAWSPGGAFYEQYF | 3 | 3.29  |
| TRBV13-2 | TRBD2 | TRBJ2-7 | CASGDGRTGALSYEQYF | 4 | 2.09  |
| TRBV14 | TRBD2 | TRBJ2-1 | CASRLGLGGHYAEQFF | 5 | 1.89  |
| spleen-2 | TRBV14 | TRBD2 | TRBJ2-1 | CASRAGTGGARAEQFF | 1 | 42.87  |
| TRBV13-1 | TRBD1 | TRBJ2-2 | CASRDTGQLYF | 2 | 28.38  |
| TRBV31 | TRBD1 | TRBJ2-7 | CAWRQGAREQYF | 3 | 4.02  |
| TRBV13-3 | TRBD1 | TRBJ1-6 | CASRGTGPLYF | 4 | 3.20  |
| TRBV13-3 | TRBD2 | TRBJ2-3 | CASSYWSGAETLYF | 5 | 3.17  |
| spleen-3 | TRBV14 | TRBD1 | TRBJ1-1 | CASSRTGQVFF | 1 | 46.02  |
| TRBV17 | TRBD1 | TRBJ2-2 | CASSGTKNTGQLYF | 2 | 13.73  |
| TRBV14 | TRBD1 | TRBJ2-7 | CASSRTGEQYF | 3 | 8.63  |
| TRBV31 | TRBD2 | TRBJ2-5 | CAWRLGGQDTQYF | 4 | 5.96  |
| TRBV13-3 | TRBD1 | TRBJ1-1 | CATRQNTEVFF | 5 | 2.85  |
| TIL-1 | TRBV13-1 | TRBD1 | TRBJ2-7 | CASSDAGTKYF | 1 | 69.04  |
| TRBV13-3 | TRBD1 | TRBJ1-1 | CASRAYTEVFF | 2 | 8.90  |
| TRBV31 | TRBD2 | TRBJ2-7 | CAWSPGGAFYEQYF | 3 | 2.21  |
| TRBV29 | TRBD1 | TRBJ1-3 | CASRDSHSGNTLYF | 4 | 1.92  |
| TRBV14 | TRBD1 | TRBJ1-4 | CASSFGVSNERLFF | 5 | 1.92  |
| TIL-2 | TRBV14 | TRBD2 | TRBJ2-1 | CASRAGTGGARAEQFF | 1 | 39.84  |
| TRBV13-1 | TRBD1 | TRBJ2-2 | CASRDTGQLYF | 2 | 30.87  |
| TRBV31 | TRBD1 | TRBJ2-5 | CAWRGDRVRDTQYF | 3 | 3.85  |
| TRBV13-3 | TRBD2 | TRBJ2-3 | CASSYWSGAETLYF | 4 | 2.87  |
| TRBV12-1 | TRBD1 | TRBJ1-1 | CASSPRGTEVFF | 5 | 2.81  |
| TIL-3 | TRBV14 | TRBD1 | TRBJ1-1 | CASSRTGQVFF | 1 | 64.36  |
| TRBV17 | TRBD1 | TRBJ2-2 | CASSGTKNTGQLYF | 2 | 9.38  |
| TRBV14 | TRBD1 | TRBJ2-7 | CASSRTGEQYF | 3 | 8.15  |
| TRBV31 | TRBD2 | TRBJ2-5 | CAWRLGGQDTQYF | 4 | 3.12  |
| TRBV14 | TRBD1 | TRBJ1-4 | CASSPGVSNERLFF | 5 | 1.92  |

OVA-tetramer+ CD8 T cells were sorted individually to high purity from spleens and TILs from three aAVC-OVA treated MO4 bearing mice (1, 2 and 3) as in Figure 4D. TCRβ deep sequencing was performed. TRBV, TRBD and TRBJ represent consensus nonmenclature for TCR variable β (V, D and J) chain sequences with the CDR3β hypervariable region translated into amino acid sequences. The 5 most frequent TCRβ clonotypes in the OVA-tetramer+ CD8 T cells are shown.