**Supplemental Table 1**

Literature search of publications where analyses of human TILs from cancer patients were performed was done. Tumor type and whether or not dysfunction of TILs was found to be reversible tabulated. Additionally, whether dysfunction involved defect in proximal TCR signaling or distal to that also recorded. “?” indicates that reversibility and/or localization of TIL dysfunction not stated in paper.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Ref | Tumor | Reversibility | Proximal/distal | Other |
| (1) | NHL | ? | Distal | Bcl-2/Bcl-xL downregulation |
| (2) | RCC | ? | Distal | Decreased proliferative capacity |
| (3) | Melanoma | Rev | Distal | Downstream genetic changes |
| (4) | Lung ca | Rev | Distal | Decreased NF-kappaB/NFAT translocation |
| (5) | Prostate ca | Rev | Distal | Arginase/NO synthase |
| (6) | Melanoma | ? | Proximal | PD1 upregulation |
| (7) | Ovarian ca | ? | Proximal | CD3z chain downregulation |
| (8) | Breast ca | Rev | ? | Decreased IL2R expression |
| (9) | Colorectal ca | Rev | Proximal | CD3z chain downregulation |
| (10) | Ovarian ca | Rev | Proximal | PD-1/Lag3 upregulation |
| (11) | Colorectal ca | ? | Proximal | CD3z chain downregulation |
| (12) | RCC | Rev | Distal | DGKa upregulation |
| (13) | Melanoma | Irrev | Proximal |  |
| (14) | Oral ca | ? | Proximal | CD3z chain downregulation |
| (15) | Lung adeno | ? | ? | Type 2 polarization |
| (16) | Cervical ca | Rev | ? | Type 2 polarization |
| (17) | RCC | Rev | Proximal | CD3z chain downregulation |
| (18) | Lung ca/melanoma/RCC | Rev | Proximal | PD-1 upregulation |
| (19) | Lung and ovarian ca | Rev | Distal | Treg cells |
| (20) | Lung ca | Rev | ? |  |
| (21) | Melanoma | Rev | Proximal |  |

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