



Fig. S2. PD-1 and PD-L1 promote T-cell activation. A) Activated T cells are subjected to a variety of regulatory pressures, one of which is imposed by PD-L1. PD-L1 on the surface of an antigen-presenting cell binds to PD-1 present on the T cell. This interaction then sends a negative signal to the T cell. Although B7 is usually expressed by antigen presenting cells, activated T cells can also up-regulate B7-1, which can bind to PD-L1. Like PD-1, the B7-1 PD-L1 interaction sends a negative signal to the T cell, thereby stalling its activation. B) PD-1 blockade with Pembrolizumab or Nivolumab boosts T-cell activation by inhibiting PD-1-mediated T-cell inhibition. C) PD-L1 blockage has the theoretical advantage in that it can block both the B7-1 and PD-1-mediated inhibition of activated T cells.