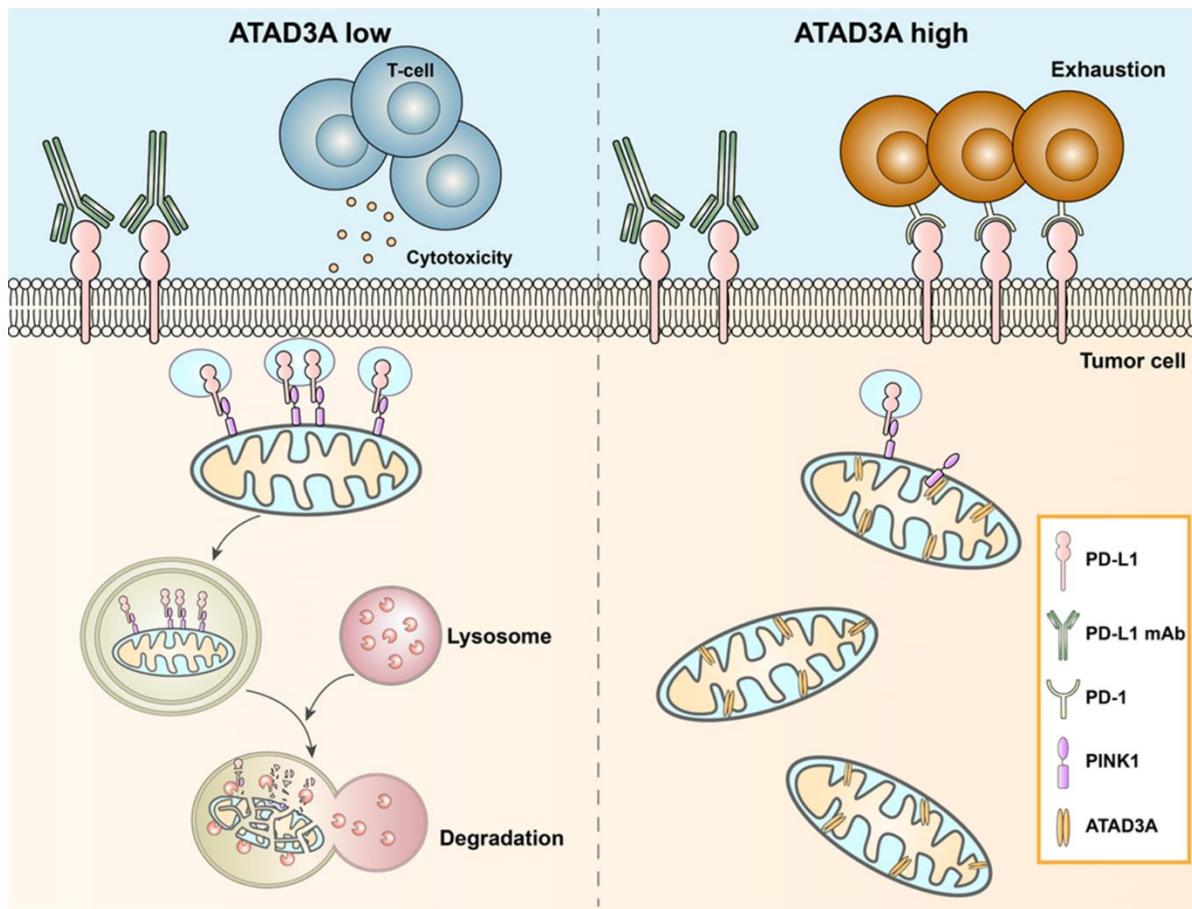


**Fig. S10**



**Fig. S10 Diagram illustrating ATAD3A-PINK1-mitophagy regulating the**

**distribution and degradation of PD-L1 in mitochondria.**

Schematic model. Left, PD-L1 is recruited to mitochondria by PINK1 and degraded via PINK1-dependent mitophagy in ATAD3A-low tumor cells. PD-L1 remained on cell membrane is neutralized by anti-PD-L1 antibodies, while T cells display cytotoxicity for killing. Right, PINK1-dependent mitophagy is suppressed and PD-L1 is accumulated inordinately on cell membrane to exceed a certain amount of anti-PD-L1 antibodies in ATAD3A-high tumor cells. Excessive PD-L1 on cell membrane binds to PD-1 to inhibit T cell activation.