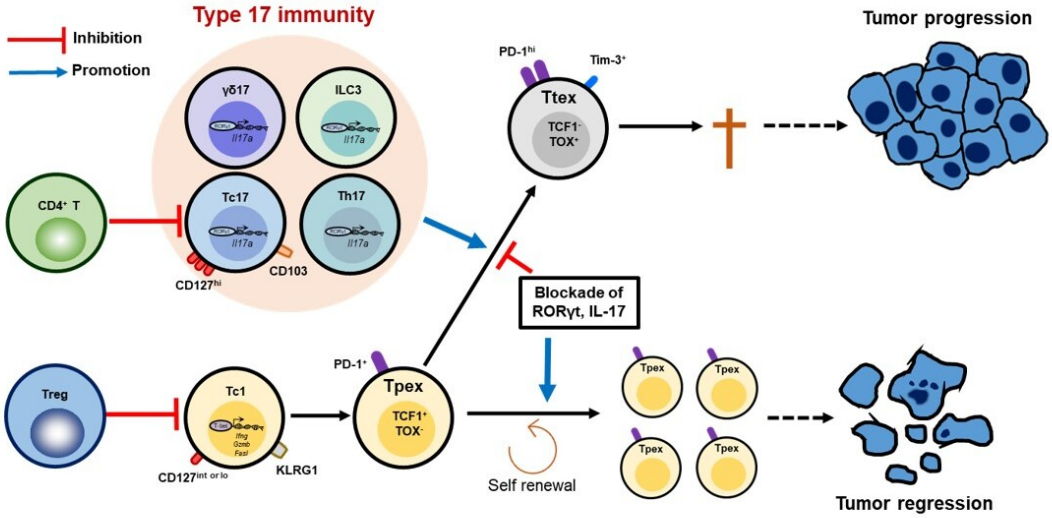
Type 17 immunity promotes the exhaustion of CD8⁺ T cells in cancer



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In Brief
Conventional CD4⁺ T cells and Treg cells suppress the differentiation of IL-17-producing CD8⁺ T cells (Tc17 cells) and IFN-γ-producing Tc1 cells in the tumor microenvironment, respectively. Type 17 cells increase the frequency of PD-1^{hi}Tim-3^{+}TCF1^{-}TOX^{+} 'terminally exhausted' T cells (Ttex) but decrease that of PD-1^{+}Tim-3^{-}TCF1^{+}TOX^{-} 'progenitor exhausted' T cells (Tpex). Blockade of RORγt or IL-17 pathway represses the terminal exhaustion of Tc1 cells and delays tumor progression.