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Anti-PD-L1/TIM-3 Bispecific Antibody LY3415244

National Cancer Institute

Source

National Cancer Institute. *Anti-PD-L1/TIM-3 Bispecific Antibody LY3415244*. NCI Thesaurus. Code C157058.

A bispecific antibody directed against the inhibitory T-cell receptor T-cell immunoglobulin and mucin domain-containing protein 3 (TIM-3; TIM3; hepatitis A virus cellular receptor 2; HAVCR2) and the immunosuppressive ligand programmed cell death-1 ligand 1 (PD-L1; cluster of differentiation 274; CD274), with potential immune checkpoint inhibitory and antineoplastic activities. Upon administration, LY3415244 simultaneously targets and binds to TIM-3 expressed on certain T-cells, including tumor-infiltrating lymphocytes (TILs), and PD-L1 expressed on tumor cells. This blocks the interaction of TIM-3 with some of its physiologic ligands and prevents PD-L1 from binding to and activating its receptor, programmed cell death 1 (PD-1; PDCD1; CD279; programmed death-1). This abrogates T-cell inhibition, activates antigen-specific T-lymphocytes and enhances cytotoxic T-cell-mediated tumor cell lysis, which may lead to a reduction in tumor growth. TIM-3, a transmembrane protein and immune checkpoint receptor, is often co-expressed with PD-1 on tumor-antigen-specific T-cells. PD-L1 binding to PD-1 on activated T-cells inhibits the expansion and survival of CD8-positive T-cells, suppresses the immune system and results in immune evasion.