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Anti-LAG3 Monoclonal Antibody TSR-033

National Cancer Institute

Source

National Cancer Institute. *Anti-LAG3 Monoclonal Antibody TSR-033*. NCI Thesaurus. Code C142978.

A humanized, immunoglobulin G4 (IgG4) monoclonal antibody directed against the inhibitory receptor lymphocyte activation gene 3 protein (LAG3; LAG-3), with potential immune checkpoint inhibitory and antineoplastic activities. Upon administration, the anti-LAG3 monoclonal antibody TSR-033 binds to LAG3 expressed on tumor-infiltrating lymphocytes (TILs) and blocks its binding with major histocompatibility complex (MHC) class II molecules expressed on tumor cells. This activates antigen-specific T-lymphocytes and enhances cytotoxic T-cell-mediated tumor cell lysis, which leads to a reduction in tumor growth. LAG3, a member of the immunoglobulin superfamily (IgSF), is expressed on various immune cells, and negatively regulates both proliferation and activation of T-cells. Its expression on TILs is associated with tumor-mediated immune suppression.