

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human GITR Ligand in ELISAs. In ELISAs, this antibody does not cross-react or interfere with recombinant human (rh) APRIL/TNFSF13, rhLIGHT/TNFSF14, rhTNF- α /TNFSF2, or rhVEGI/TNFSF15.
Source	Monoclonal Mouse IgG ₁ Clone # 109117
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>S. frugiperda</i> insect ovarian cell line Sf 21-derived recombinant human GITR Ligand Glu52-Ser177 Accession # Q9UNG2
Formulation	Lyophilized from a 0.2 μ m filtered solution in PBS with BSA as a carrier protein. See Certificate of Analysis for details.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.

Human GITR Ligand/TNFSF18 Sandwich Immunoassay		Reagent
ELISA Capture	2-8 μ g/mL	Human GITR Ligand/TNFSF18 Antibody (Catalog # MAB6942)
ELISA Detection	0.5-2.0 μ g/mL	Human GITR Ligand/TNFSF18 Biotinylated Antibody (Catalog # BAM6943)
Standard		Recombinant Human GITR Ligand/TNFSF18 (Catalog # 694-GL)

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	<p>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</p> <ul style="list-style-type: none"> ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

GITR (glucocorticoid-induced TNF receptor superfamily-related protein, also named AITR, activation-inducible TNF receptor superfamily-related protein) and GITR ligand (GITRL) are novel members of the TNF receptor (TNFR) and TNF superfamilies (SF) that have been designated TNFRSF18 and TNFSF18, respectively. Human GITRL cDNA encodes a 177 amino acid residues type II membrane protein. The carboxy-terminal extracellular domain shows sequence identity to TNF/TNFSF2 (21%), Fas ligand/TNFSF6 (21%), TRAIL/TNFSF10 (18%), and lymphotoxin α /TNFSF1 (18%). GITRL is constitutively expressed in human umbilical vein endothelial cells but is not expressed in resting or stimulated T cell lines, B cell lines or peripheral blood mononuclear cells. GITR, the receptor for GITRL, is expressed at low levels in peripheral blood T cells, bone marrow, thymus, spleen and lymph nodes. In contrast to mouse GITR, expression of human GITR is not induced by treatment with dexamethasone, but is up-regulated by antigen-receptor stimulation or by treatment with soluble anti-CD3 plus anti-CD28 or PMA plus ionomycin. Ligation of GITR has been found to induce nuclear factor (NF)- κ B activation via TNF receptor-associated factor 2 and protect cells from TCR activation-induced cell death. It has been proposed that GITRL and GITR may modulate T lymphocyte functions in peripheral tissues.

References:

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2. Kwon, B. *et al.* (1999) J. Biol. Chem. **274**:6056.
3. Gurney, A.L. *et al.* (1999) Current Biology **9**:215.
4. Kwon, B. *et al.* (1999) Current Opinion in Immunology **11**:340.