

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human GITR/TNFRSF18 in ELISAs and Western blots. In sandwich immunoassays, less than 0.3% cross-reactivity with recombinant mouse GITR, recombinant human (rh) 4-1BB, rhFas, rhHVEM, rhDR6, rhOPG, rhGITR Ligand, and rhCD27 is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant human GITR/TNFRSF18 Gln26-Glu161 (Thr45Ala) Accession # Q9Y5U5
Formulation	Lyophilized from a 0.2 µm 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.

	Recommended Concentration	Sample
Western Blot	0.1 µg/mL	Recombinant Human GITR/TNFRSF18 Fc Chimera (Catalog # 689-GR)
Human GITR/TNFRSF18 Sandwich Immunoassay		Reagent
ELISA Capture	2-8 µg/mL	Human GITR/TNFRSF18 Antibody (Catalog # MAB689)
ELISA Detection	0.1-0.4 µg/mL	Human GITR/TNFRSF18 Biotinylated Antibody (Catalog # BAF689)
Standard		Recombinant Human GITR/TNFRSF18 Fc Chimera (Catalog # 689-GR)

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 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 tumor necrosis factor receptor, also named AITR, activation-inducible TNF R family member), is a 228 amino acid (aa) type I transmembrane protein belonging to the TNF R family and has been designated TNFRSF18. The GITR cytoplasmic domain has striking homology with the cytoplasmic domain of 4-1BB and CD27. Human GITR shares 55% homology with murine GITR. GITR 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 stimulation or by treatment with anti-CD3 plus anti-CD28, or PMA plus ionomycin. Human GITR ligand was identified from human umbilical vein endothelial cells and is a 177 aa polypeptide belonging to the TNF superfamily (TNFSF18). Ligation of GITR can activate NF-κB through TRAF2, and protect T cells from TCR activation-induced cell death. It has been proposed that GITR ligand and GITR may modulate T lymphocyte functions.

References:

1. Nocentini, G. *et al.* (1997) *Proc. Natl. Acad. Sci. USA* **94**:6216.
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.