

## GITR/TNFRSF18 Protein, Human, Recombinant (His & Avi), Biotinylated

### General Information

Synonyms:	CD357;GITR-D;tumor necrosis factor receptor superfamily, member 18;AITR;GITR
Protein Construction:	A DNA sequence encoding the Human TNFRSF18 (NP_683700.1) (Met1-Glu161) was expressed with a C-terminal polyhistidine tag followed by an AVI tag. The expressed protein was biotinylated in vivo by the Biotin-Protein ligase (BirA enzyme) which is co-expressed. Predicted N terminal: Gln 26
Species:	Human
Expression Host:	HEK293 Cells
Accession:	Q9Y5U5-3
Molecular Weight:	17.79 kDa (predicted); 29.13 kDa (reducing conditions)

### QC Testing

Biological Activity:	Immobilized Human GITRL mFc at 2 µg/mL (100 µL/well) can bind Human GITR, Biotinylated, the EC50 is 15-90 ng/mL.
Purity:	> 95 % as determined by SDS-PAGE.
Endotoxin:	< 1.0 EU/µg of the protein as determined by the LAL method.
Formulation:	Lyophilized from a solution filtered through a 0.22 µm filter, containing PBS, pH 7.4. Typically, a mixture containing 5% to 8% trehalose, mannitol, and 0.01% Tween 80 is incorporated as a protective agent before lyophilization.

### Preparation and Storage

**Reconstitution:**  
A Certificate of Analysis (CoA) containing reconstitution instructions is included with the products. Please refer to the CoA for detailed information.

**Stability & Storage:**

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

*Actual storage temperature shall be subject to the COA.*

**Shipping:**

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

### Protein Background

GITR, also known as TNFRSF18(CD357), belongs to the tumor necrosis factor receptor (TNF-R) superfamily. It is the receptor for TNFSF18. GITR plays a key role in dominant immunological self-tolerance maintained by CD25(+)CD4(+) regulatory T cells. GITR may be involved in interactions between activated T-lymphocytes and endothelial cells

and in the regulation of T-cell receptor-mediated cell death. GITR and its ligand are important costimulatory molecules in the pathogenesis of autoimmune diseases. It also mediates NF-kappa-B activation via the TRAF2/NIK pathway. Cancer Immunotherapy Co-stimulatory Immune Checkpoint Targets Immune Checkpoint Immune Checkpoint Detection: ELISA Antibodies Immune Checkpoint Targets Immunotherapy Targeted Therapy

### Reference

Kwon B, et al. (1999) Identification of a novel activation-inducible protein of the tumor necrosis factor receptor superfamily and its ligand. *J Biol Chem.* 274(10):6056-61.

Nocentini G, et al. (1997) A new member of the tumor necrosis factor/nerve growth factor receptor family inhibits T cell receptor-induced apoptosis. *Proc Natl Acad Sci.* 94(12): 6216-21.

Baltz KM, et al. (2007) Cancer immunoediting by GITR (glucocorticoid-induced TNF-related protein) ligand in humans: NK cell/tumor cell interactions. *FASEB J.* 21(10):2442-54.

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