

Active Recombinant Mouse Tigit, Fc-tagged

Cat. No. Tigit-108M **Lot. No.** (See product label)

SPECIFICATION

Product Overview	A DNA sequence encoding the mouse TIGIT (PP86176) (Met1-Gly141) was expressed, fused with the Fc region of human IgG1 at the C-terminus.
Species	Mouse
Source	Human Cells
ProteinLength	1-141 a.a.
Description	TIGIT, also known as V-set and transmembrane domain-containing protein 3 (VSTM3) or V-set and immunoglobulin domain-containing protein 9 (VSIG9) is a new surface protein containing an immunoglobulin variable domain, a transmembrane domain and an immunoreceptor tyrosine-based inhibitory motif (ITIM). TIGIT is expressed on regulatory, memory, activated T cells and NK cells. It binds PVR with high affinity, and PVRL2 with lower affinity, but not PVRL3. Knockdown of TIGIT with siRNA in human memory T cells did not affect T cell responses, however, TIGIT inhibits NK cytotoxicity directly through its ITIM. TIGIT suppresses T cell activation by promoting the generation of mature immunoregulatory dendritic cells. The binding of PVR to TIGIT on human dendritic cells enhanced the production of IL-10 and diminished the production of IL-12p40. In addition, TIGIT counter inhibits the NK-mediated killing of tumor cells and protects normal cells from NK-mediated cytotoxicity thus providing an "alternative self" mechanism for MHC class I inhibition.
Predicted N Terminal	Gly 26

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Form	Lyophilized from sterile PBS, pH 7.4. Normally 5 % - 8 % trehalose and mannitol are added as protectants before lyophilization.
Bio-activity	Immobilized mouse PVR-His at 10 µg/ml (100 µl/well) can bind mouse TIGIT-Fc, The EC50 of mouse TIGIT-Fc is 0.25-0.55 µg/ml.
Molecular Mass	The recombinant mouse TIGIT /Fc is a disulfide-linked homodimer. The reduced monomer comprises 357 amino acids and has a predicted molecular mass of 39.8 kDa. The apparent molecular mass of the protein is approximately 52 kDa in SDS-PAGE under reducing conditions due to glycosylation.
Endotoxin	< 1.0 EU per µg of the protein as determined by the LAL method
Purity	> 90 % as determined by SDS-PAGE
Stability	Samples are stable for up to twelve months from date of receipt at -70°C
Storage	Store it under sterile conditions at -20°C to -80°C. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.

GENE INFORMATION

Gene Name	Tigit T cell immunoreceptor with Ig and ITIM domains [Mus musculus (house mouse)]
Official Symbol	Tigit
Synonyms	Tigit; T cell immunoreceptor with Ig and ITIM domains; Vstm3; ENSMUSG00000071552; T-cell immunoreceptor with Ig and ITIM domains; V-set and transmembrane domain containing 3; V-set and transmembrane domain-containing protein 3; tigit

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Gene ID	100043314
mRNA Refseq	NM_001146325
Protein Refseq	NP_001139797
UniProt ID	P86176
Chromosome Location	16; 16 B4
Pathway	Cell adhesion molecules (CAMs)
Function	receptor binding

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