

## 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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<b>Form</b>	Lyophilized from sterile PBS, pH 7.4. Normally 5 % - 8 % trehalose and mannitol are added as protectants before lyophilization.
<b>Bio-activity</b>	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.
<b>Molecular Mass</b>	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.
<b>Endotoxin</b>	< 1.0 EU per µg of the protein as determined by the LAL method
<b>Purity</b>	> 90 % as determined by SDS-PAGE
<b>Stability</b>	Samples are stable for up to twelve months from date of receipt at -70°C
<b>Storage</b>	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

<b>Gene Name</b>	Tigit T cell immunoreceptor with Ig and ITIM domains [ <i>Mus musculus</i> (house mouse) ]
<b>Official Symbol</b>	Tigit
<b>Synonyms</b>	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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<b>Gene ID</b>	100043314
<b>mRNA Refseq</b>	NM_001146325
<b>Protein Refseq</b>	NP_001139797
<b>UniProt ID</b>	P86176
<b>Chromosome Location</b>	16; 16 B4
<b>Pathway</b>	Cell adhesion molecules (CAMs)
<b>Function</b>	receptor binding

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