Active Recombinant Human TIGIT Protein, Fc-tagged

Cat. No. TIGIT-103H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human TIGIT Protein extracellular domain 22-138aa (signal peptide removed), fused with a C-terminal Fc tag, was expressed in CHO.
Species	Human
Source	CHO
ProteinLength	22-138 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	Met 22

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Form	Lyophilized from sterile PBS, pH 7.4.
Bio-activity	Measured by its ability to bind with human CD155-Fc in a functional ELISA. Measured by its ability to bind with mouse PVRFch in a functional ELISA.
Molecular Mass	The recombinant mature human TIGIT protein consists of 349 amino acids and has a calculated molecular mass of 38.8 KD.
Endotoxin	<1.0EU/ug, LAL method
Purity	>95% (SDS-PAGE)
Stability	Samples are stable for up to twelve months from date of receipt at -70ºC.
Storage	Store it under sterile conditions at -20ºC~-70ºC. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Reconstitution	It is recommended that sterile water be added to the vial to prepare a stock solution of 0.2 ug/ul. Centrifuge the vial at 4℃ before opening to recover the entire contents.

GENE INFORMATION

Gene Name	TIGIT T cell immunoreceptor with Ig and ITIM domains [Homo sapiens]
Official Symbol	TIGIT
Synonyms	TIGIT; T cell immunoreceptor with Ig and ITIM domains; V set and immunoglobulin domain containing 9 , V set and transmembrane domain containing 3 , VSIG9, VSTM3; T-cell immunoreceptor with Ig and ITIM domains; DKFZp667A205; FLJ39873; V-set and transmembrane domain containing 3; V-set and immunoglobulin domain containing 9; Washington University cell adhesion molecule; V-set and

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	transmembrane domain-containing protein 3; V-set and immunoglobulin domain-containing protein 9; VSIG9; VSTM3; WUCAM;
Gene ID	201633
mRNA Refseq	NM_173799
Protein Refseq	NP_776160
MIM	612859
UniProt ID	Q495A1
Chromosome Location	3q13.31
Function	protein binding;

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