Recombinant Human TIGIT Protein (aa 1-138, His Tag)

Catalog No. PKSH031356

Note: Centrifuge before opening to ensure complete recovery of vial contents.

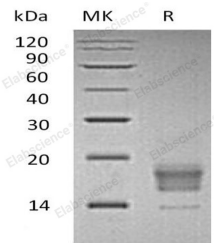
Description

Synonyms	T-cell immunoreceptor with Ig and ITIM domains;;VSIG9;VSTM3;TIGIT;V-set and transmembrane domain-containing protein 3;V-set and immunoglobulin domain-containing protein 9
Species	Human
Expression Host	HEK293 Cells
Sequence	Met 1-Phe 138
Accession	Q495A1
Calculated Molecular Weight	14.2 kDa
Tag	C-His
Bioactivity	Measured by its ability to bind with human CD155-Fc in a functional ELISA. Measured by its ability to bind with mouse PVR-Fch in a functional ELISA.

Properties

Purity	> 85 % as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU per μg of the protein as determined by the LAL method.
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80℃. Reconstituted protein solution can be stored at 4-8℃ for 2-7 days. Aliquots of reconstituted samples are stable at < -20℃ for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from sterile PBS, pH 7.4 Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
Reconstitution	Please refer to the printed manual for detailed information.

Data



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Background

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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.

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