Recombinant Protein Technical Manual

Recombinant Human TIGIT Protein (aa 138, His Tag)(Active)

RPES2480

Product Data:

Product SKU: RPES2480

Size: 20µg

Species: Human

Expression host: HEK293 Cells

Uniprot: Q495A1

Protein Information:

Molecular Mass:	14.2 kDa
AP Molecular Mass:	
Tag:	C-His
Bio-activity:	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.
Purity:	> 85 % as determined by reducing SDS-PAGE.
Endotoxin:	< 1.0 EU per µg of the protein as determined by the LAL method.
Storage:	Lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. 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
Reconstitution:	Please refer to the printed manual for detailed information.
Application:	Functional ELISA
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

Immunogen Information:

Sequence: Met 1-Phe 138

Background:

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 IL0 and diminished the production of IL2p40. 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.