

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

**Catalog Number:** PKSH031356

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

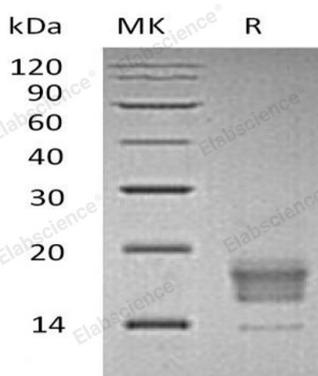
### Description

<b>Species</b>	Human
<b>Mol_Mass</b>	14.2 kDa
<b>Accession</b>	Q495A1
<b>Bio-activity</b>	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

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

### Data



> 85 % as determined by reducing SDS-PAGE.

### Background

### For Research Use Only

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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