

# Product Data Sheet

## TIGIT Protein, Human (120a.a, HEK293, His)

Cat. No.:	HY-P70624
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
Source:	HEK293
Accession:	Q495A1 (M22-P141)
Gene ID:	201633
Molecular Weight:	16-18 kDa

PROPERTIES	
AA Sequence	MMTGTIETTG NISAEKGGSI ILQCHLSSTT AQVTQVNWEQ QDQLLAICNA DLGWHISPSF KDRVAPGPGL GLTLQSLTVN DTGEYFCIYH TYPDGTYTGR IFLEVLESSV AEHGARFQIP
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 μm filtered solution of PBS, pH 7.4.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH <sub>2</sub> O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US;may vary elsewhere.

### DESCRIPTION

### Background

The TIGIT protein plays a pivotal role in immune regulation, exhibiting high-affinity binding to the poliovirus receptor (PVR).
 This interaction leads to increased secretion of IL10 and decreased secretion of IL12B, contributing to an
 immunosuppressive environment. TIGIT further exerts its immunomodulatory effect by suppressing T-cell activation and
 promoting the generation of mature immunoregulatory dendritic cells. Structurally, TIGIT forms a homodimer in cis,
 binding with high affinity to PVR, thereby creating a heterotetrameric assembly comprising two TIGIT and two PVR
 molecules. Additionally, TIGIT demonstrates lower-affinity binding to NECTIN2 and NECTIN3, underscoring its capacity for
 diverse molecular interactions. The multifaceted functions and binding affinities of TIGIT highlight its crucial role in immune
 regulation and its potential as a therapeutic target in modulating immune responses.

### Caution: Product has not been fully validated for medical applications. For research use only.

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