Data Sheet (Cat.No.TMPJ-00629)

TargetMol

TIGIT Protein, Cynomolgus, Recombinant (His)

General Information

Synonyms:	VSTM3;V-set and transmembrane domain-containing protein 3;T-cell immunoreceptor with Ig and ITIM domains;VSIG9;TIGIT;V-set and immunoglobulin domain-containing protein 9
Protein Construction:	Met89-Pro209
Species:	Cynomolgus
Expression Host:	HEK293 Cells
Accession:	G7NXM4
Molecular Weight:	16-30 KDa (reducing condition)
AA Sequence:	Met89-Pro209

QC Testing

Biological Activity:	Loaded Anti-Human TIGIT mAb-Fc on Protein A Biosensor, can bind Cynomolgus TIGIT-His with an affinity constant of 3041 nM as determined in BLI assay. (Regularly tested)
Purity:	Greater than 95% as determined by reducing SDS-PAGE. (QC verified)
Endotoxin:	< 0.1 ng/μg (1 EU/μg) as determined by LAL test.
Formulation:	Lyophilized from a solution filtered through a 0.22 μm filter, containing PBS, pH 7.4.

Preparation and Storage

Reconstitution:

Reconstitute the lyophilized protein in distilled water. The product concentration should not be less than 100 μg/ml. Before opening, centrifuge the tube to collect powder at the bottom. After adding the reconstitution buffer, avoid vortexing or pipetting for mixing.

Stability & Storage:

Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

T cell immunoreceptor with Ig and ITIM domains (TIGIT), also called VSIG9 and Vstm3, is a member of the CD28 family within the Ig superfamily of proteins. TIGIT contains an immunoglobulin variable domain, a transmembrane domain and an immunoreceptor tyrosine-based inhibitory motif (ITIM), and is expressed on regulatory, memory, activated T cells and NK cells. TIGIT binds to CD155(PVR) that appear on dendritic cells (DC), macrophages and endothelium with high affinity, and CD112(PVRL2) with lower affinity, but not CD113 (PVRL3). TIGIT-Fc fusion

protein could interact with PVR on DC and enhance the secretion of IL-10, but inhibit the macrophage activation. Mice lacking TIGIT show increased T cell responses and susceptibility to autoimmune challenges, while knockdown of TIGIT with siRNA in human memory T cells did not affect T cell responses.

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