Active Recombinant Cynomolgus Monkey TIGIT protein, Fc-tagged

Cat. No. TIGIT-197C **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Cynomolgus Monkey TIGIT(Met22-Pro142) fused with Fc region of Human IgG1 at C-terminal was expressed in HEK293.
Species	Cynomolgus
Source	HEK293
ProteinLength	22-142 a.a.
Description	TIGIT (T cell Immunoreceptor with Ig and ITIM domains), also called VSTM3 (V-set and transmembrane domain-containing 3), VSIG9 (V-set and Ig domain-containing 9) and WUCAM (Washington University cell adhesion molecule) is a 30-34 kDa type I transmembrane protein that is a member of the CD28 family within the Ig superfamily of proteins. Human TIGIT cDNA encodes 244 amino acids (aa) including a 21 aa signal sequence, a 120 aa extracellular region with a V-type Ig-like domain and two potential N-glycosylation site, a 21 aa transmembrane sequence, and an 82 aa cytoplasmic domain with an ITIM motif. A 170 aa variant diverges after aa 166. Within the ECD, human TIGIT shares only 68-75% aa sequence identity with mouse, porcine, canine, equine and bovine TIGIT. Cyno TIGIT shares 88.4% homology with human TIGIT. TIGIT is expressed on NK cells and subsets of activated, memory and regulatory T cells, and particularly on follicular helper T cells within secondary lymphoid organs. It binds to CD155/PVR/Necl-5 and Nectin-2/CD112/PVRL2 that appear on dendritic cells (DC) and endothelium. Binding of TIGIT by DC induces IL-

Tel: 1-631-559-9269 1-516-512-3133
Email: info@creative-biomart.com Fax: 1-631-938-8127
45-1 Ramsey Road, Shirley, NY 11967, USA

	10 release and inhibits IL-12 production. Ligation of TIGIT on T cells down-regulates TCR-mediated activation and subsequent proliferation, while NK cell TIGIT ligation blocks NK cell cytotoxicity. Through CD155 and Nectin-2, which also interact with DNAM-1/CD226 and CD96/Tactile, TIGIT is part of an interacting network of Ig superfamily members that may augment or oppose each other. In particular, TIGIT binding to CD155 can antagonize the effects of DNAM-1. Soluble TIGIT is able to compete with DNAM-1 for CD155 binding and attenuates T cell responses, while mice lacking TIGIT show increased T cell responses and susceptibility to autoimmune challenges.
Predicted N Terminal	Met22
Form	Lyophilized from a 0.2 μm filtered solution in NaH2PO4, NaCl and EDTA.
Bio-activity	Measured by its binding ability in a functional ELISA. When Recombinant Human CD155/PVR is coated at 2.5 μg/mL (100 μL/well), the concentration of Recombinant Cynomolgus Monkey TIGIT Fc Chimera that produces 50% optimal binding response is 12-72 ng/mL.
Molecular Mass	Predicted Molecular Mass: 40 kDa SDS-PAGE: 43 - 60 kDa, reducing conditions
Endotoxin	<0.1 EU per 1 μg of the protein by the LAL method.
Purity	>95%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.
Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. 12 months from date of receipt, -20 to -70 centigrade as supplied. 1 month, 2 to 8 centigrade under sterile conditions after reconstitution.

Tel: 1-631-559-9269 1-516-512-3133
Email: info@creative-biomart.com Fax: 1-631-938-8127
45-1 Ramsey Road, Shirley, NY 11967, USA

	3 months, -20 to -70 centigrade under sterile conditions after reconstitution.
Reconstitution	Reconstitute at 200 µg/mL in PBS.

GENE INFORMATION

Gene Name	TIGIT T-cell immunoreceptor with Ig and ITIM domains [Macaca fascicularis]
Official Symbol	TIGIT
Synonyms	TIGIT; T-cell immunoreceptor with Ig and ITIM domains
Gene ID	102121588

Tel: 1-631-559-9269 1-516-512-3133
Email: info@creative-biomart.com Fax: 1-631-938-8127
45-1 Ramsey Road, Shirley, NY 11967, USA