

## DESCRIPTION

<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human TIGIT in direct ELISAs.
<b>Source</b>	Monoclonal Mouse IgG <sub>1</sub> Clone # 741170
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant
<b>Immunogen</b>	Mouse myeloma cell line NS0-derived recombinant human TIGIT Met1-Pro141 Accession # Q495A1
<b>Conjugate</b>	Alexa Fluor 700 Excitation Wavelength: 675-700 nm Emission Wavelength: 723 nm
<b>Formulation</b>	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide
*Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.	

## APPLICATIONS

**Please Note:** Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

**Blockade of Receptor-ligand Interaction** Optimal dilution of this antibody should be experimentally determined.

## PREPARATION AND STORAGE

<b>Shipping</b>	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
<b>Stability &amp; Storage</b>	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

## BACKGROUND

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. 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/Nectin-5 and Nectin-2/CD112/PVRL2 that appear on dendritic cells (DC) and endothelium. Binding of TIGIT by DC induces IL-10 release and inhibits IL-12 production. Ligation of TIGIT on T cells downregulates 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.

## PRODUCT SPECIFIC NOTICES

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