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TIGIT Antibody

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP22132a

Product Information

Application	WB, E
Primary Accession	Q495A1
Reactivity	Human, Mouse
Host	Rabbit
Clonality	polyclonal
Isotype	Rabbit IgG
Clone Names	RB55818
Calculated MW	26319

Additional Information

Gene ID	201633
Other Names	T-cell immunoreceptor with Ig and ITIM domains, V-set and immunoglobulin domain-containing protein 9, V-set and transmembrane domain-containing protein 3, TIGIT, VSIG9, VSTM3
Target/Specificity	This TIGIT antibody is generated from a rabbit immunized with a KLH conjugated synthetic peptide between 12-142 amino acids from human TIGIT.
Dilution	WB~~1:2000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	TIGIT Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	TIGIT
Synonyms	VSIG9, VSTM3
Function	Inhibitory receptor that plays a role in the modulation of immune responses. Suppresses T-cell activation by promoting the generation of mature immunoregulatory dendritic cells (PubMed:19011627). Upon binding

	to its ligands PVR/CD155 or NECTIN2/CD112, which are expressed on antigen-presenting cells, sends inhibitory signals to the T-cell or NK cell. Mechanistically, interaction with ligand leads to phosphorylation of the cytoplasmic tail by Src family tyrosine kinases such as FYN or LCK, allowing subsequent binding to adapter GRB2 and SHIP1/INPP5D. In turn, inhibits PI3K and MAPK signaling cascades (PubMed:23154388). In addition, associates with beta-arrestin-2/ARRB2 to recruit SHIP1/INPP5D that suppresses autoubiquitination of TRAF6 and subsequently inhibits NF- kappa-B signaling pathway (PubMed:24817116). Also acts as a receptor for NECTIN4 to inhibit NK cell cytotoxicity (PubMed:32503945).
Cellular Location	Cell membrane; Single-pass type I membrane protein. Note=Clustered to the immunological synapse where it disrupts granule polarization and cytotoxicity of NK cells once engaged with PVR.
Tissue Location	Expressed at low levels on peripheral memory and regulatory CD4+ T-cells and NK cells and is up-regulated following activation of these cells (at protein level)

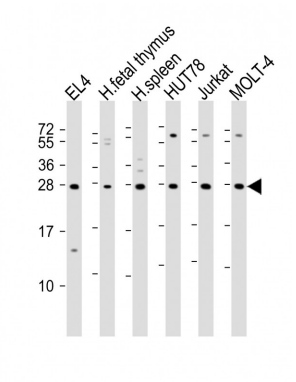
Background

Binds with high affinity to the poliovirus receptor (PVR) which causes increased secretion of IL10 and decreased secretion of IL12B and suppresses T-cell activation by promoting the generation of mature immunoregulatory dendritic cells.

References

Ota T.,et al.Nat. Genet. 36:40-45(2004).
Bechtel S.,et al.BMC Genomics 8:399-399(2007).
Yu X.,et al.Nat. Immunol. 10:48-57(2009).
Stengel K.F.,et al.Proc. Natl. Acad. Sci. U.S.A. 109:5399-5404(2012).

Images



All lanes : Anti-TIGIT Antibody at 1:2000 dilution Lane 1: EL4 whole cell lysate Lane 2: human fetal thymus lysate Lane 3: human spleen lysate Lane 4: HUT78 whole cell lysate Lane 5: Jurkat whole cell lysate Lane 6: MOLT-4 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 26 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.