

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human TREML2 in direct ELISAs and Western blots. In direct ELISAs, less than 1% cross-reactivity with recombinant mouse TREML2 is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant human TREML2 Gly19-Ser268 Accession # Q5T2D2
Conjugate	Alexa Fluor 350 Excitation Wavelength: 346 nm Emission Wavelength: 442 nm
Formulation	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.

Western Blot Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.

Stability & Storage Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

Trem-like transcript 2 protein (TLT-2; also TREML2) is a 33 kDa (unglycosylated) type I transmembrane cell surface receptor and member of the Trem family of receptor proteins. Human TLT-2 is synthesized as a 321 amino acid (aa) precursor that contains an 18 aa signal sequence, a 250 aa extracellular domain (ECD), a 21 aa transmembrane segment, and a 32 aa cytoplasmic tail (SwissProt #: Q5T2D2). Within the ECD are an Ig-like V-type domain (aa 20-121) and one potential site of N-linked glycosylation. Mature human TLT-2 shares 49% aa sequence identity with mature mouse TLT-2. Cell surface expression of TLT-2 is seen for most of the B and myeloid cell lines (1, 2). TLT-2 is also expressed constitutively on CD8⁺ T cells and induced on CD4⁺ T cells after activation (2). TLT-2 plays a role in the innate and adaptive immune responses. In 2008, Hashiguchi *et al.* discovered that the B7 family member B7-H3, which also plays important roles in immune responses, specifically bound to TLT-2. According to their research, stimulation with B7-H3 transfectants preferentially up-regulated the proliferation and IFN-γ production on CD8⁺ T cells (2). Also, transduction of TLT-2 into T cells resulted in enhanced IL-2 and IFN-γ production via interactions with B7-H3, and blockade of the B7-H3:TLT-2 pathway with mAb against B7-H3 or TLT-2 efficiently inhibited contact hypersensitivity responses (2). In 2009, however, Leitner *et al.* extensively analyzed interaction of B7-H3 with TLT-2 and found no evidence for such an interaction (3).

PRODUCT SPECIFIC NOTICES

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