

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human TL1A/TNFSF15 in direct ELISAs.
Source	Recombinant Monoclonal Rabbit IgG Clone # 2116A
Purification	Protein A or G purified from cell culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant human TL1A/TNFSF15 Leu72-Leu251 Accession # O95150
Conjugate	Alexa Fluor 594 Excitation Wavelength: 590 nm Emission Wavelength: 617 nm
Formulation	Supplied 0.2 mg/mL in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details. *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.

	Recommended Concentration	Sample
Flow Cytometry	0.25-1 µg/10 ⁶ cells	Human PBMC lymphocytes

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. <ul style="list-style-type: none"> 12 months from date of receipt, 2 to 8 °C as supplied.

BACKGROUND

TL1A is a type II transmembrane protein belonging to the TNF superfamily and has been designated TNF superfamily member 15 (TNFSF15). Human TL1A is a 251 aa protein consisting of a 35 aa cytoplasmic domain, a 24 aa transmembrane region and a 192 aa C-terminal extracellular domain. It is a longer variant of the previously cloned TL1 (also known as VEGI) that is possibly a cloning artifact. TL1A is predominantly expressed in endothelial cells and its expression is inducible by TNF-α and IL-1α. TL1A binds with high affinity to death receptor 3 (DR3), which is now designated TNF receptor superfamily member 25 (TNFRSF25). DR3 was formerly designated TNFRSF12 when it was thought to be the receptor for TWEAK/TNFSF12. DR3 is expressed primarily on activated T cells. Depending on the cell context, ligation of DR3 by TL1A can trigger one of two signaling pathways, activation of the transcription factor NF-kappa-B or activation of caspases and apoptosis. On primary T cells, TL1A induces NF-kappa-B activation and a costimulatory signal to increase IL-2 responsiveness and the secretion of proinflammatory cytokines. However, in a tumor cell line, TF-1, TL1A has been shown to induce caspase activity and apoptosis. These effects of TL1A are blocked by the secreted, soluble decoy receptor 3 (DcR3), also known as TR6 and TNFRSF6B, which compete with DR3 for binding to TL1A. Consistent with the observed *in vitro* activities, TL1A promotes *ex vivo* splenocyte expansion and enhances *in vivo* graft-versus-host-response.

References:

1. Migone, T.S. *et al.* (2002) *Immunity* **16**:479.

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