



# Armenian Hamster Anti-Mouse TL1A (TNFSF15) Monoclonal antibody, clone 5G4.6 (CABT-L4547)

This product is for research use only and is not intended for diagnostic use.

## PRODUCT INFORMATION

### Product Overview

The 5G4.6 monoclonal antibody reacts with the TNF family member TL1A, also known as TNFSF15. TL1A is expressed on activated T cells, dendritic cells, monocytes and endothelial cells. TL1A expression has been shown to be induced by pro-inflammatory stimuli such as TNF  $\alpha$  and IL-1 $\alpha$ . In contrast to the TNF $\alpha$  receptors, which are expressed on essentially all cells, the receptor for TL1A, DR3 (TNFRSF25), is primarily expressed on T cells, NK cells, and NKT cells, thereby limiting the effects of TL1A. TL1A-DR3 interactions are thought to promote effector T cell proliferation at the site of inflammation and in draining lymph nodes. Blockade of TL1A-DR3 interactions strikingly reduces pathology in several animal models in which autoreactive T cells play a role. TL1A has been linked to inflammatory bowel disease. The 5G4.2 antibody has been shown to block TL1A binding to DR3 and reduce disease severity in mouse models of colitis.

<b>Target</b>	Mouse TL1A (TNFSF15)
<b>Immunogen</b>	Recombinant murine TL1A
<b>Isotype</b>	IgG
<b>Source/Host</b>	Armenian Hamster
<b>Species Reactivity</b>	Mouse
<b>Clone</b>	5G4.6
<b>Purification</b>	Protein A purified. Purity>95%. Determined by SDS-PAGE
<b>Conjugate</b>	Functional Grade

<b>Applications</b>	in vivo TL1A neutralization, FC
<b>Molecular Weight</b>	150 kDa
<b>Format</b>	0.2 $\mu$ M filtered liquid. Purified from tissue culture supernatant in an animal free facility
<b>Concentration</b>	Lot specific
<b>Size</b>	5 mg
<b>Buffer</b>	PBS, pH 7.0. Contains no stabilizers or preservatives. [low endotoxin azide-free]
	Endotoxin level: <2EU/mg (<0.002EU/ $\mu$ g). Determined by LAL gel clotting assay
	Related dilution buffer: CABT-LB04
<b>Preservative</b>	None
<b>Storage</b>	The antibody solution should be stored undiluted at 4°C, and protected from prolonged exposure to light. Do not freeze.
<b>Ship</b>	Wet ice

## BACKGROUND

<b>Introduction</b>	Human TL-1A or TNF Ligand-Related Molecule 1A, also known as Tumor Necrosis Factor Ligand Superfamily Member 15, is a homotrimeric 251 amino acid cytokine expressed from the TNFSF15 gene located at locus 9q32 on chromosome 9. Inducible by TNF and IL-1 $\alpha$ , TL-1A is abundantly expressed in endothelial cells but is not expressed in either B- or T-cells. This cytokine is a ligand for receptor TNFRSF25 and decoy receptor TNFRSF21/DR6. It can activate NF- $\kappa$ B and MAP kinases, and can also act as an autocrine factor to induce apoptosis in endothelial cells. Moreover, TL-1A cytokine has been found to inhibit endothelial cell proliferation, and thus may function as an angiogenesis inhibitor.
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<b>Keywords</b>	TNF Ligand-Related Molecule 1A;TL1A
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## GENE INFORMATION

<b>Official Symbol</b>	TNF Ligand-Related Molecule 1A
<b>Synonyms</b>	TNF Ligand-Related Molecule 1A; TL1A
<b>References</b>	Richard, A. C., et al. (2015). "The TNF-family ligand TL1A and its receptor DR3 promote T cell-mediated allergic immunopathology by enhancing differentiation and pathogenicity of IL-9-producing T cells." <i>J Immunol</i> 194(8): 3567-3582. PubMed;