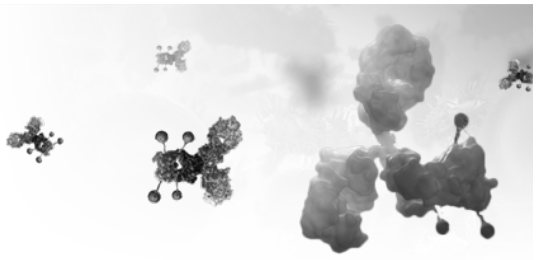

Armenian Hamster Anti-Mouse CD40L (CD154) Monoclonal antibody, clone MR-1 (CABT-L4360)

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

PRODUCT INFORMATION

Product Overview	The MR-1 monoclonal antibody reacts with mouse CD154 also known as CD40 ligand. CD154 exists as a 39 kDa accessory molecule and belongs to the TNF superfamily of cytokines. CD154 is primarily expressed on the surface of activated CD4+ T lymphocytes but can also be expressed by platelets, mast cells, macrophages, basophils, NK cells, B lymphocytes, CD8+ T lymphocytes as well as non-hematopoietic cells including smooth muscle cells, endothelial cells, and epithelial cells. CD154 signals through CD40 and is thought to play a key role in T and B lymphocyte costimulation. The MR-1 monoclonal antibody has been reported to inhibit in vitro activation of B lymphocytes by blocking the binding of CD154 with CD40 on T helper cells as well as inhibit the formation of germinal centers and disrupt antigen-specific T cell responses. Additionally, the MR-1 antibody blocks interactions of T cells and antigen-presenting cells in vitro and blocks the development of experimental autoimmune disease in vivo.
Target	Mouse CD40L (CD154)
Immunogen	Activated mouse Th1 clone D1.6
Isotype	IgG
Source/Host	Armenian Hamster
Species Reactivity	Mouse
Clone	MR-1
Purification	Protein A purified. Purity>95%. Determined by SDS-PAGE
Conjugate	Functional Grade

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Applications	in vivo blocking of CD40/CD40L signaling, in vitro blocking of CD40/CD40L signaling, WB
Molecular Weight	150 kDa
Format	0.2 μM filtered liquid. Purified from tissue culture supernatant in an animal free facility
Concentration	Lot specific
Size	5 mg
Buffer	PBS, pH 7.0. Contains no stabilizers or preservatives. [low endotoxin azide-free] Endotoxin level: <2EU/mg (<0.002EU/μg). Determined by LAL gel clotting assay Related dilution buffer: CABT-LB04
Preservative	None
Storage	The antibody solution should be stored undiluted at 4°C, and protected from prolonged exposure to light. Do not freeze.
Ship	Wet ice

BACKGROUND

Introduction	The protein encoded by this gene is expressed on the surface of T cells. It regulates B cell function by engaging CD40 on the B cell surface. A defect in this gene results in an inability to undergo immunoglobulin class switch and is associated with hyper-IgM syndrome. [provided by RefSeq, Jul 2008]
Keywords	CD40LG;CD40 ligand;IGM;IMD3;TRAP;gp39;CD154;CD40L;HIGM1;T-BAM;TNFSF5;hCD40L;CD40-L;CD40 antigen ligand;T-cell antigen Gp39;T-B cell-activating molecule;TNF-related activation protein;tumor necrosis factor (ligand) superfamily member 5;

GENE INFORMATION

Official Symbol	CD40 ligand
Synonyms	CD40LG; CD40 ligand; IGM; IMD3; TRAP; gp39; CD154; CD40L; HIGM1; T-BAM; TNFSF5; hCD40L; CD40-L; CD40 antigen ligand; T-cell antigen Gp39; T-B cell-activating molecule; TNF-related activation protein; tumor necrosis factor (ligand) superfamily member 5;
References	Pasqual, G., et al. (2018). "Monitoring T cell-dendritic cell interactions in vivo by intercellular enzymatic labelling." Nature 553(7689): 496-500. PubMed;Hofstetter, A. R., et al. (2012). "MHC class Ib-restricted CD8 T cells differ in dependence on CD4 T cell help and CD28 costimulation over the course of mouse polyomavirus infection." J Immunol 188(7): 3071-3079.

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PubMed;Taylor, J. J., et al. (2012). "A germinal center-independent pathway generates unswitched memory B cells early in the primary response." J Exp Med 209(3): 597-606. PubMed;West, E. E., et al. (2011). "Tight regulation of memory CD8(+) T cells limits their effectiveness during sustained high viral load." Immunity 35(2): 285-298. PubMed;

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