Ligand (CD40) Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	CD40 ligand, Polyclonal Antibody
Full Product Name	CD40 ligand Antibody
Product Gene Name	anti-CD40 antibody
Product Synonym Names	CD40 ligand; CD40 ligand (CD40-L; T-cell antigen Gp39; TNF-related activation protein; TRAP; Tumor necrosis factor ligand superfamily member 5; CD antigen CD154)[Cleaved into: CD40 ligand, membrane form; CD40 ligand, soluble form]
Clonality	Polyclonal
Isotype	Rabbit IgG
Host	Rabbit
Species Reactivity	Human, Rat, Mouse
Form/Format	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Purity/Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Concentration	1mg/ml (lot specific)
Specificity	This antibody detects endogenous levels of Human CD40 ligand
Preparation and Storage	Store at -20 degree C/1 year
Molecular Weight	29,274 Da
Chromosome Location	Chromosome: X; NC_000023.10 (135730336..135742549). Location: Xq26
OMIM	300386
3D Structure	ModBase 3D Structure for P29965
Immunogen	Synthesized peptide derived from human CD40 ligand
Modification	Unmodified/Total
Disease	Defects in CD40LG are the cause of X-linked immunodeficiency with hyper-IgM type 1 (HIGM1)[MIM; 308230]; also known as X-linked hyper IgM syndrome (XHIM). HIGM1 is an immunoglobulin isotype switch defect characterized by elevated concentrations of serum IgM and decreased amounts of all other isotypes. Affected males present at an early age (usually within the first year of life) recurrent bacterial and opportunistic infections, including Pneumocystis carinii pneumonia and intractable diarrhea due to cryptosporidium infection. Despite substitution treatment with intravenous immunoglobulin, the overall prognosis is rather poor, with a death rate of about 10% before adolescence.
Function	Mediates B-cell proliferation in the absence of co-stimulus as well as IgE production in the presence of IL-4. Involved in immunoglobulin class switching. Release of soluble CD40L from platelets is partially regulated by GP IIb/IIIa, actin polymerization, and an matrix metalloproteinases (MMP) inhibitor-sensitive pathway.
Online Information	CD40L defect database

PTM	N-linked glycan is a mixture of high mannose and complex type. Glycan structure does not influence binding affinity to CD40. Not O-glycosylated. The soluble form derives from the membrane form by proteolytic processing. Belongs to the tumor necrosis factor family.
Subunit	Homotrimer.
Tissue Specificity	Specifically expressed on activated CD4+ T-lymphocytes.
Product Categories/Family for anti-CD40 antibody	Primary Antibodies
Applications Tested/Suitable for anti-CD40 antibody	Western Blot (WB), ELISA (EIA)
Application Notes for anti-CD40 antibody	WB: 1:1000-2000 ELISA: 1:5000-20000
Related Product Information for anti-CD40 antibody	MBS9519756 is an antibody targeting CD40. Also known as CD40 ligand Antibody. Reactive in Human, Rat, Mouse. Host: Rabbit.
Other Notes	Small volumes of anti-CD40 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for CD40. It may not necessarily be applicable to this product.

NCBI GI #	4557433
NCBI GeneID	959
NCBI Accession #	NP_000065.1
UniProt Primary Accession #	P29965
UniProt Related Accession #	P29965
GenBank Nucleotide #	NM_000074.2
NCBI Official Full Name	CD40 ligand
NCBI Official Synonym Full Names	CD40 ligand
NCBI Official Symbol	CD40LG
NCBI Official Synonym Symbols	IGM; IMD3; TRAP; gp39; CD154; CD40L; HIGM1; T-BAM; TNFSF5; hCD40L
UniProt Protein Name	CD40 ligand
UniProt Synonym Protein Names	T-cell antigen Gp39; TNF-related activation protein; TRAP; Tumor necrosis factor ligand superfamily member 5
Protein Family	Tumor necrosis factor receptor superfamily
UniProt Gene Name	CD40LG
UniProt Synonym Gene Names	CD40L; TNFSF5; TRAP; CD40-L; TRAP
UniProt Entry Name	CD40L_HUMAN
NCBI Protein Information	CD40 ligand; 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
NCBI Summary for CD40	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]

UniProt Comments for CD40	CD40LG: Mediates B-cell proliferation in the absence of co- stimulus as well as IgE production in the presence of IL-4. Involved in immunoglobulin class switching. Defects in CD40LG are the cause of X-linked immunodeficiency with hyper-IgM type 1 (HIGM1); also known as X-linked hyper IgM syndrome (XHIM). HIGM1 is an immunoglobulin isotype switch defect characterized by elevated concentrations of serum IgM and decreased amounts of all other isotypes. Affected males present at an early age (usually within the first year of life) recurrent bacterial and opportunistic infections, including Pneumocystis carinii pneumonia and intractable diarrhea due to cryptosporidium infection. Despite substitution treatment with intravenous immunoglobulin, the overall prognosis is rather poor, with a death rate of about 10% before adolescence. Belongs to the tumor necrosis factor family. Protein type: Membrane protein, integral; Cell adhesion Chromosomal Location of Human Ortholog: Xq26 Cellular Component: extracellular space; integral to plasma membrane; integral to membrane; plasma membrane; external side of plasma membrane Molecular Function: CD40 receptor binding; cytokine activity; tumor necrosis factor receptor binding Biological Process: B cell proliferation; platelet activation; leukocyte adhesion; regulation of immune response; positive regulation of interleukin-12 production; immunoglobulin secretion; B cell differentiation; isotype switching; inflammatory response; regulation of immunoglobulin secretion; negative regulation of apoptosis Disease: Immunodeficiency With Hyper-igm, Type 1
Research Articles on CD40	**1.** Suppression of CD154 expression is a surrogate for suppression of proliferation.
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