

Product datasheet for **SM1224P**

CD40L (CD40LG) Mouse Monoclonal Antibody [Clone ID: TRAP1.3.6]

Product data:

Product Type:	Primary Antibodies
Clone Name:	TRAP1.3.6
Applications:	FC
Recommended Dilution:	Flow Cytometry: Use 10 µl of 1/10-1/50 diluted antibody to label 1 ⁰ cells in 100 µl.
Reactivity:	Human
Host:	Mouse
Isotype:	IgG1
Clonality:	Monoclonal
Immunogen:	Mouse myeloma cell line transfected with human CD40L (CD154). Spleen cells from immunised BALB/c mice were fused with cells of the mouse P3X63.Ag 8653 myeloma cell line.
Specificity:	This antibody recognises the CD154 cell surface antigen, a 32kD glycoprotein also known as CD40 ligand. CD154 is expressed on activated T lymphocytes, predominantly CD4 +ve and also on some basophils and mast cells. This antibody binds to CD154 at an epitope distinct from the CD40 binding site.
Formulation:	PBS, pH 7.2 State: Purified State: Liquid purified IgG fraction Stabilizer: 5% BSA Preservative: 0.09% Sodium Azide
Concentration:	lot specific
Purification:	Affinity Chromatography on Protein A
Conjugation:	Unconjugated
Storage:	Store undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Gene Name:	CD40 ligand



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Database Link: [Entrez Gene 959 Human P29965](#)

Background: CD40 ligand (CD40L) is a 33 kDa type II membrane glycoprotein expressed mainly on the cell surface of activated T lymphocytes, but also exists as a soluble form extracellularly. CD40L is the ligand for CD40, a member of the TNF superfamily, which is expressed on the cell surface of B cells, macrophages/monocytes, dendritic cells, vascular endothelial cells, and epithelial cells. CD40L plays an important role in B cell proliferation, antibody class switching, modulation of apoptosis in the germinal center through interaction with B cells expressing CD40, and activation of CD4+ T cells. Mutation within the CD40L gene is linked to hyper IgM syndrome, an X linked immunodeficiency disease that is characterized by elevated level of serum IgM and decreased level of other isotypes.

The protein encoded by this gene is a member of the TNF receptor superfamily. This receptor has been found to be essential in mediating a broad variety of immune and inflammatory responses including T cell dependent immunoglobulin class switching, memory B cell development, and germinal center formation. AT hook transcription factor AKNA is reported to coordinately regulate the expression of this receptor and its ligand, which may be important for homotypic cell interactions. Adaptor protein TNFR2 interacts with this receptor and serves as a mediator of the signal transduction. The interaction of this receptor and its ligand is found to be necessary for amyloid-beta-induced microglial activation, and thus is thought to be an early event in Alzheimer disease pathogenesis. Two alternatively spliced transcript variants of this gene encoding distinct isoforms have been reported.

Synonyms: CD40 ligand, CD40-L, CD40LG, TNFSF5, TRAP, GP39