

## Technical Data Sheet

## Purified Mouse Anti-Human CD154

## Product Information

Material Number:	552559
Alternate Name:	CD40L
Size:	0.5 mg
Concentration:	0.5 mg/ml
Clone:	hCD40L-M90.1
Isotype:	Mouse IgG1, $\kappa$
Reactivity:	QC Testing: Human
Storage Buffer:	Aqueous buffered solution containing $\leq 0.09\%$ sodium azide.

## Description

Clone hCD40L-M90.1 reacts with CD40 ligand (CD40L), a 39 kDa type II membrane glycoprotein expressed on activated T cells. CD40-CD40L interaction plays a very important role in T cell-dependent B-cell proliferation, differentiation, and memory cell formation. In addition, blocking of CD40-CD40L interaction has been demonstrated with soluble CD40, resulting in the inhibition of immunoglobulin isotype switching. It has been reported that patients with X-linked hyper-IgM syndrome have defective expression of functional CD40L due to a defective gene that encodes CD40L.

## Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.  
Store undiluted at 4°C.

## Application Notes

## Application

ELISA Capture	Routinely Tested
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## Recommended Assay Procedure:

**ELISA Capture:** The purified hCD40L-M90.1 antibody (Cat. No. 552559) is useful as a capture antibody for a sandwich ELISA for measuring human CD40L protein levels. Purified hCD40L-M90.1 antibody can be paired with biotinylated hCD40L-M91.2, anti-human CD40L (Cat. No. 552560) as the detecting antibody. Purified hCD40L-M90.1 antibody should be titrated 1 - 4  $\mu\text{g/ml}$  to determine the optimal concentration for ELISA capture. To obtain linear standard curves, doubling dilutions of recombinant human soluble CD40L, ranging from 2000 to 15  $\text{pg/ml}$  are recommended for inclusion in each ELISA plate. For specific methodology see the ELISA chapter in the Immune Function Handbook.

**Note:** This ELISA antibody pair shows no cross-reactivity with the following recombinant human proteins: CD40, IL-1Ra, IL-1R1, IL-1RII, IL-1 $\alpha$ , IL-1 $\beta$ , IL-2, IL-3, IL-4, sIL-4R, IL-5, IL-6, IL-6R, IL-7, IL-8, IL-10, IL-12p40, IL-12p70, IL-13, IL-15, TNF- $\alpha$ , TNF- $\beta$ , sTNFRI, sTNFRII, IFN $\gamma$ , TRAIL, MCSF, TGF $\beta$ , Trx

## Suggested Companion Products

Catalog Number	Name	Size	Clone
552560	Biotin Mouse Anti-Human CD154	0.5 mg	hCD40L-M91

## Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to [www.bdbiosciences.com/pharmingen/protocols](http://www.bdbiosciences.com/pharmingen/protocols) for technical protocols.
3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
4. This product is sold under US Patent No. 5,961,974

## References

Fuleihan R, Ramesh N, Horner A, et al. Cyclosporin A inhibits CD40 ligand expression in T lymphocytes. *J Clin Invest.* 1994; 93(3):1315-1320.(Biology)  
Gray D, Dullforce P, Jainandunsing S. Memory B cell development but not germinal center formation is impaired by in vivo blockade of CD40-CD40 ligand interaction. *J Exp Med.* 1994; 180(1):141-155.(Biology)  
Nishioka Y, Lipsky PE. The role of CD40-CD40 ligand interaction in human T cell-B cell collaboration. *J Immunol.* 1994; 153(3):1027-1036.(Biology)

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van Kooten C, Gaillard C, Galizzi JP, et al. B cells regulate expression of CD40 ligand on activated T cells by lowering the mRNA level and through the release of soluble CD40. *Eur J Immunol.* 1994; 24(4):787-792.(Biology)