

Technical Data Sheet

Biotin Mouse Anti-Human CD154

Product Information

Material Number:	552560
Alternate Name:	CD40L
Size:	0.5 mg
Concentration:	0.5 mg/ml
Clone:	hCD40L-M91
Isotype:	Mouse IgG1, κ
Reactivity:	QC Testing: Human
Storage Buffer:	Aqueous buffered solution containing $\leq 0.09\%$ sodium azide.

Description

hCD40L-M91 reacts with CD154 (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.

The antibody was conjugated with biotin under optimum conditions, and unreacted biotin was removed.

Store undiluted at 4°C and protected from prolonged exposure to light. Do not freeze.

Application Notes

Application

ELISA Detection	Routinely Tested
-----------------	------------------

Recommended Assay Procedure:

ELISA Capture: The biotinylated hCD40L-M91 antibody (Cat. No. 552560) is useful as a detection antibody for a sandwich ELISA for measuring human CD154 (CD40L) protein levels. Biotinylated hCD40L-M91 antibody should be titrated between 0.5 - 2 $\mu\text{g/ml}$ to determine its optimal concentration for ELISA detection. To obtain linear standard curves, doubling dilutions of recombinant human soluble CD154 (CD40L), ranging from 2000 to 15 pg/ml are recommended for inclusion in each ELISA plate. For specific methodology see the ELISA chapter in the Immune Function Handbook or the protocol section of the web site, www.bdbiosciences.com.

Note: This ELISA antibody pair shows no cross-reactivity with the following recombinant human cytokines: CD40, IL-1Ra, IL-1R1, IL-1RII, IL-1 α , IL-1 β , 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- α , TNF- β , sTNFRI, sTNFRII, IFN γ , TRAIL, GM-CSF, TGF β , Trx

Suggested Companion Products

Catalog Number	Name	Size	Clone
552559	Purified Mouse Anti-Human CD154	0.5 mg	hCD40L-M90.1

Product Notices

- Since applications vary, each investigator should titrate the reagent to obtain optimal results.
- Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
- 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.

BD Biosciences

bdbiosciences.com

United States	Canada	Europe	Japan	Asia Pacific	Latin America/Caribbean
877.232.8995	888.259.0187	32.53.720.550	0120.8555.90	65.6861.0633	55.11.5185.9995

For country-specific contact information, visit bdbiosciences.com/how_to_order/

Conditions: The information disclosed herein is not to be construed as a recommendation to use the above product in violation of any patents. BD Biosciences will not be held responsible for patent infringement or other violations that may occur with the use of our products. Purchase does not include or carry any right to resell or transfer this product either as a stand-alone product or as a component of another product. Any use of this product other than the permitted use without the express written authorization of Becton Dickinson and Company is strictly prohibited.

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Not for resale.

BD, BD Logo and all other trademarks are the property of Becton, Dickinson and Company. ©2008 BD



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)
- 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)