Technical Data Sheet

# Purified Mouse Anti-Human CD154

## Product Information

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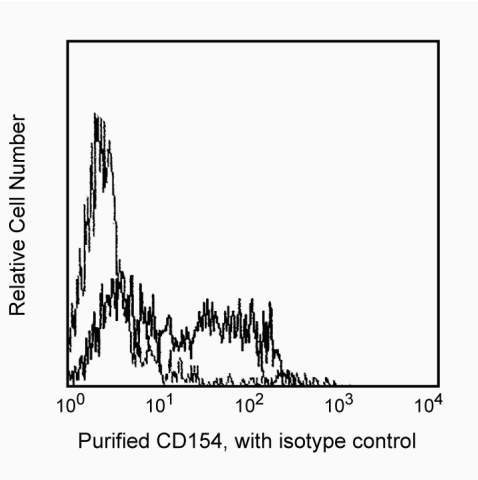
|---|---|
| **Material Number:** | **555698** |
| **Alternate Name:** | CD40L |
| **Size:** | 0.1 mg |
| **Concentration:** | 0.5 mg/ml |
| **Clone:** | TRAP1 |
| **Isotype:** | Mouse IgG1 κ |
| **Reactivity:** | QC Testing: Human<br>Tested in Development: Baboon, Rhesus, Cynomolgus |
| **Workshop:** | VI 6T-068 |
| **Storage Buffer:** | Aqueous buffered solution containing ≤0.09% sodium azide. |

## Description

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. Anti-CD40L mAb partially blocks T cell-B cell interaction affecting subsequent proliferation, differentiation, and memory cell formation. Anti-CD40L mAb partially blocks T cell-B cell interaction affecting subsequent proliferation, IL-2R expression and differentiation of B cells. 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.

This antibody is routinely tested by flow cytometric analysis. Other applications were tested at BD Biosciences Pharmingen during antibody development only or reported in the literature.




***Profile of TPA+Ca++ Ionophore-stimulated PBMCs analyzed on a FACScan (BDIS, San Jose, CA)***

## 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**

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| Flow cytometry | Routinely Tested |

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## Suggested Companion Products

| Catalog Number | Name | Size | Clone |
|---|---|---|---|
| 555746 | Purified Mouse IgG1 Kappa Isotype Control | 0.1 mg | MOPC-21 |
| 555988 | FITC Goat Anti-Mouse IgG/IgM | 0.5 mg | Gt/Ms |

## 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 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.

## References


Kishimoto T, von dem Borne AEG, Goyert SM,et al., ed. *Leucocyte Typing VI: White Cell Differentiation Antigens.* London: Garland Publishing; 1997. (Clone-specific)

Mason D, Andre P, Bensussan A, ed. *Leukocyte Typing VII.* New York: Oxford University Press; 2002.(Biology)

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)