

Technical Data Sheet

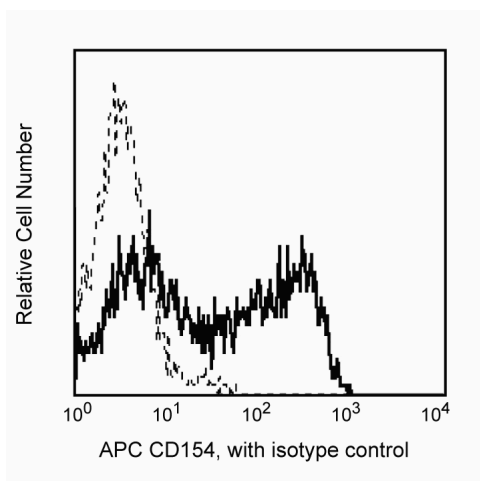
APC Mouse Anti-Human CD154

Product Information

Material Number:	555702
Alternate Name:	CD40L
Size:	100 tests
Vol. per Test:	20 µl
Clone:	TRAP1
Isotype:	Mouse IgG1, κ
Reactivity:	QC Testing: Human Tested in Development: Baboon, Rhesus, Cynomolgus
Workshop:	VI 6T-068
Storage Buffer:	Aqueous buffered solution containing BSA and ≤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.



Profile of TPA+ Ca⁺⁺ Ionophore-stimulated PBMC 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.

The antibody was conjugated to APC under optimum conditions, and unconjugated antibody and free APC were removed.

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

Application Notes

Application

Flow cytometry

Routinely Tested

Suggested Companion Products

Catalog Number	Name	Size	Clone
555751	APC Mouse IgG1, κ Isotype Control	100 tests	MOPC-21

Product Notices

1. This reagent has been pre-diluted for use at the recommended Volume per Test. We typically use 1×10^6 cells in a 100-µl experimental sample (a test).
2. Since applications vary, each investigator should titrate the reagent to obtain optimal results.

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3. Please refer to www.bdbiosciences.com/pharming/en/protocols for technical protocols.
4. For fluorochrome spectra and suitable instrument settings, please refer to our Fluorochrome Web Page at www.bdbiosciences.com/colors.
5. 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.
6. Source of all serum proteins is from USDA inspected abattoirs located in the United States.

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)
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- 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. *Leucocyte Typing VII*. New York: Oxford University Press; 2002. (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)