Technical Data Sheet

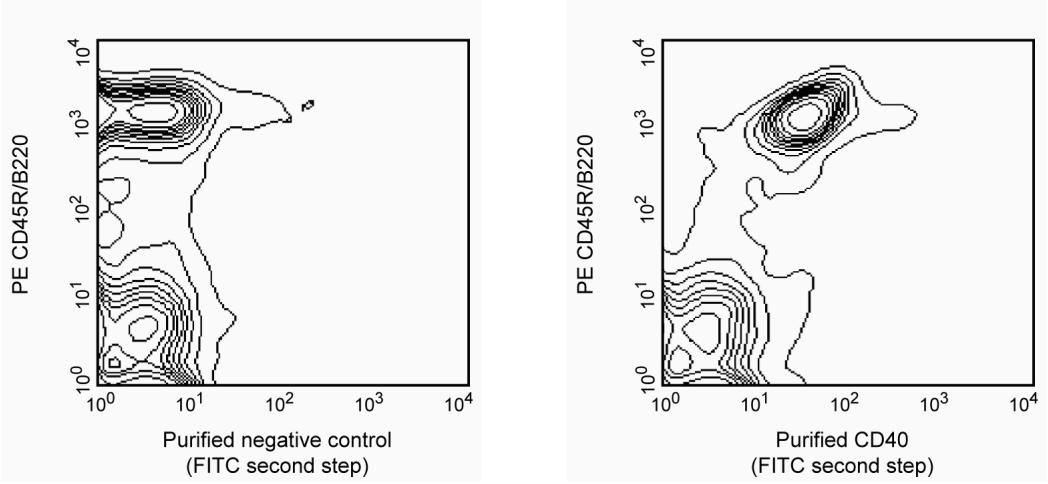
Purified Hamster Anti-Mouse CD40

Product Information

Material Number:	**553722**
Alternate Name:	Bp50; Tnfrsf5; TNR5; TRAP; CD40L receptor; GP39; HIGM1; IMD3; T-BAM
Size:	0.1 mg
Concentration:	0.5 mg/ml
Clone:	HM40-3
Immunogen:	(BALB/c x NZB) F1 Mouse-derived Lymphoma WEHI-231
Isotype:	Armenian Hamster IgM, κ
Reactivity:	QC Testing: Mouse Tested in Development: Rat
Storage Buffer:	Aqueous buffered solution containing protein stabilizer and ≤0.09% sodium azide.

Description

The HM40-3 antibody reacts with CD40, a 40-50-kDa glycoprotein expressed on B lymphocytes and other antigen-presenting cells. The CD40 molecule has a central role in B-cell growth and differentiation. Furthermore, interactions of CD40 with its ligand, CD154, are involved in the initiation and effector stages of cell-mediated immune responses. CD40 may be involved in the triggering of NK cells and NK-T cells. Soluble HM40-3 antibody stimulates splenic and peritoneal B cells to proliferate *in vitro*. This antibody also induces spleen B cells to express the costimulatory molecules CD80 (B7-1) and CD86 (B7-2). HM40-3 mAb has been demonstrated to inhibit the binding of soluble CD154 (gp39, CD40 Ligand) to soluble CD40 and to cell-surface CD40. This hamster mAb to a mouse leukocyte antigen has been observed to cross-react with similar populations of Lewis, Sprague-Dawley, and LOU16 rat leukocytes.



Two-color analysis of the expression of CD40 on mouse spleen cells. *BALB/c mouse splenocytes were simultaneously stained with PE Rat Anti-Mouse CD45R/B220 mAb (Cat. No. 553089/553090; both panels) and either Purified Hamster Anti-Mouse CD40 mAb (Cat. No. 553722; Right Panel) or Purified Hamster IgM, λ1 Isotype Standard (Cat. No 553958; Left Panel) followed by FITC Mouse Anti-Armenian Hamster IgM mAb (Cat. No. 554033; both panels). Flow cytometry was performed on a BD FACScan™ flow cytometry system.*

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

Flow cytometry	Routinely Tested

Recommended Assay Procedure:

For immunohistochemical staining of mouse tissue, we recommend the use of Purified Rat Anti-Mouse CD40 antibody (Cat. No. 550285, clone 3/23). It is specifically formulated for IHC application.

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Suggested Companion Products

Catalog Number	Name	Size	Clone
553089	PE Rat Anti-Mouse CD45R/B220	0.1 mg	RA3-6B2
554056	PE Mouse Anti-Armenian and Syrian Hamster IgG Cocktail	0.2 mg	(none)
553958	Purified Hamster IgM, λ1 Isotype Standard	0.5 mg	G235-1
554033	FITC Mouse Anti-Armenian Hamster IgM	0.5 mg	G188-2

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.
4. Sodium azide is a reversible inhibitor of oxidative metabolism; therefore, antibody preparations containing this preservative agent must not be used in cell cultures nor injected into animals. Sodium azide may be removed by washing stained cells or plate-bound antibody or dialyzing soluble antibody in sodium azide-free buffer. Since endotoxin may also affect the results of functional studies, we recommend the NA/LE (No Azide/Low Endotoxin) antibody format, if available, for in vitro and in vivo use.
5. Although hamster immunoglobulin isotypes have not been well defined, BD Biosciences Pharmingen has grouped Armenian and Syrian hamster IgG monoclonal antibodies according to their reactivity with a panel of mouse anti-hamster IgG mAbs. A table of the hamster IgG groups, Reactivity of Mouse Anti-Hamster Ig mAbs, may be viewed at http://www.bdbiosciences.com/documents/hamster_chart_11x17.pdf.

References

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