Technical Data Sheet

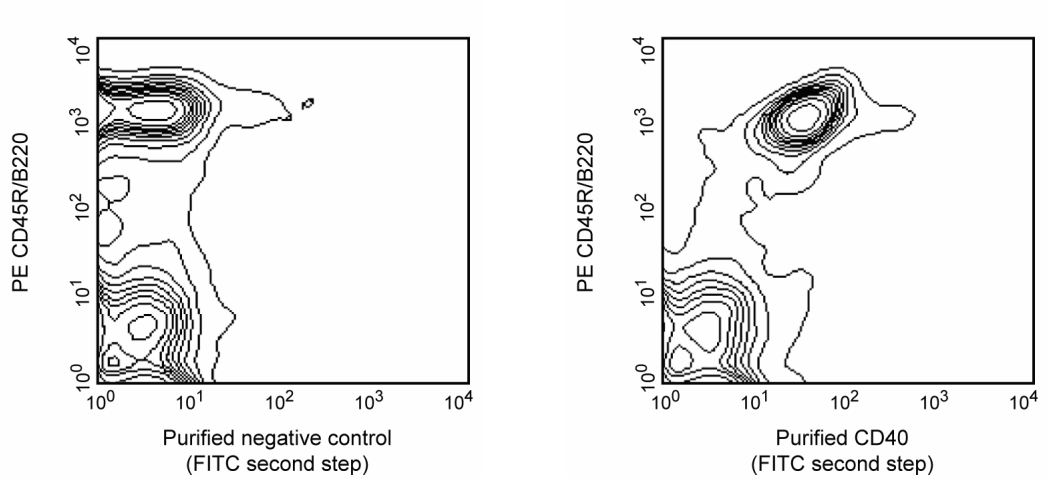
Purified NA/LE Hamster Anti-Mouse CD40

Product Information

Material Number:	**553721**
Alternate Name:	Bp50; Tnfrsf5; TNR5; TRAP; CD40L receptor; GP39; HIGM1; IMD3; T-BAM
Size:	0.5 mg
Concentration:	1.0 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:	No azide/low endotoxin: Aqueous buffered solution containing no preservative, 0.2µm sterile filtered. Endotoxin level is ≤0.1 EU/µg (≤0.01 ng/µg) of protein as determined by the LAL assay.

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 splenocytes were simultaneously stained with PE Rat Anti-Mouse CD45R/B220 (Cat. No. 553089/553090) and Purified NA/LE Hamster Anti-Mouse CD40 (Cat. No. 553721; right panel), followed by FITC Mouse Anti-Armenian Hamster IgM (Cat. No. 553721). Two-color contour plots were derived from gated events with the side and forward light-scattering characteristics of viable splenocytes. Flow cytometry was performed on a BD FACScan™ flow cytometry system.*

Preparation and Storage

Store undiluted at 4°C.

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

This preparation contains no preservatives, thus it should be handled under aseptic conditions.

Application Notes

Application

Flow cytometry	Routinely Tested
(Co)-stimulation	Reported
Blocking	Reported

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Recommended Assay Procedure:
For immunohistochemical staining of mouse tissue, we recommend the use Purified Rat Anti-Mouse CD40 (clone 3/23; Cat. No. 550285) in our special formulation for immunohistochemistry.

Note: This product may appear to contain aggregation and/or precipitation of the IgM antibody. Investigators are advised to briefly spin down any particulate matter.

Suggested Companion Products

Catalog Number	Name	Size	Clone
553089	PE Rat Anti-Mouse CD45R/B220	0.1 mg	RA3-6B2
553957	Purified NA/LE Hamster IgM, λ1 Isotype Control	0.5 mg	G235-1
550285	Purified Rat Anti-Mouse CD40	1 mL	3/23
554033	FITC Mouse Anti-Armenian Hamster IgM	0.5 mg	G188-2
553090	PE Rat Anti-Mouse CD45R/B220	0.2 mg	RA3-6B2
554656	Stain Buffer (FBS)	500 mL	(none)
554657	Stain Buffer (BSA)	500 mL	(none)

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. An isotype control should be used at the same concentration as the antibody of interest.
3. 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.
4. Species testing during development may have been performed with a different format of the same clone. Selected applications have been tested for cross-reactivity.
5. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.

References

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