Technical Data Sheet

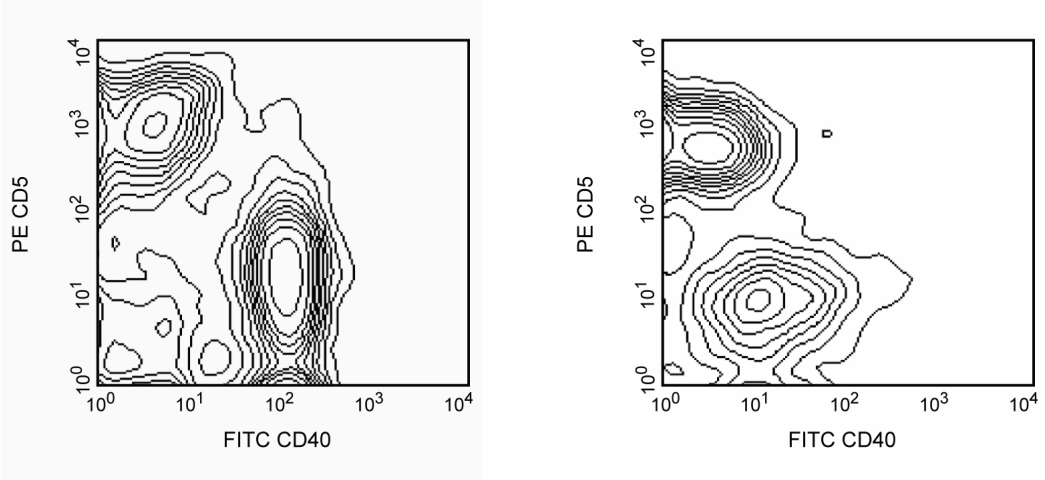
FITC Hamster Anti-Mouse CD40

Product Information

Material Number:	**553723**
Size:	0.5 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 and rat spleen cells. *BALB/c mouse splenocytes were simultaneously stained with PE-conjugated anti-mouse CD5 mAb 53-7.3 (Cat. No. 553022/553023) and FITC-conjugated mAb HM40-3 (left panel). LOU rat splenocytes were simultaneously stained with PE-conjugated anti-rat CD5 mAb OX-19 (Cat. No. 554851) and FITC-conjugated mAb HM40-3 (right panel). 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.
The antibody was conjugated with FITC under optimum conditions, and unreacted FITC was removed.
Store undiluted at 4°C and protected from prolonged exposure to light. Do not freeze.

Application Notes

Application

Flow cytometry	Routinely Tested

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Recommended Assay Procedure:

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
553022	PE Rat Anti-Mouse CD5	0.1 mg	53-7.3
554851	PE Mouse Anti-Rat CD5	0.2 mg	OX-19
553960	FITC Hamster IgM, λ1 Isotype Control	0.25 mg	G235-1

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

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