

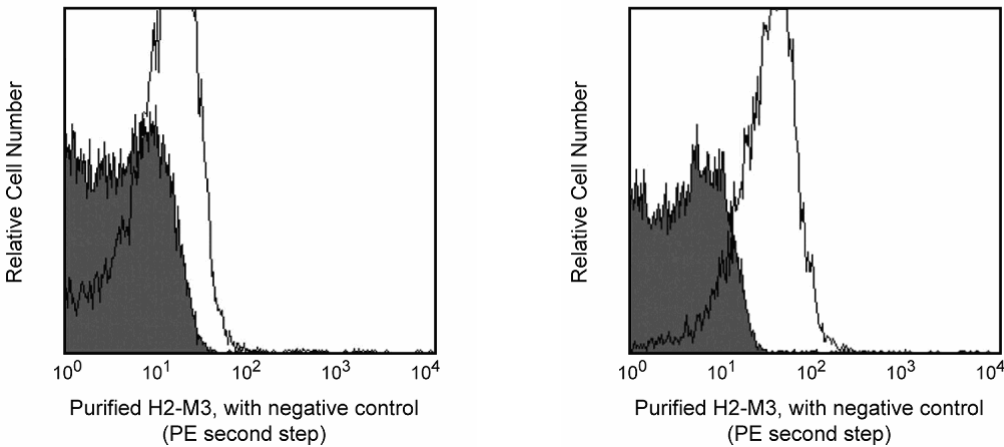
Technical Data Sheet

Purified Hamster Anti-Mouse H2-M3

Product Information	
Material Number:	551769
Size:	0.1 mg
Concentration:	0.5 mg/ml
Clone:	130
Immunogen:	Purified soluble complex of recombinant truncated M3 and β 2-microglobulin
Isotype:	Armenian Hamster IgG1, κ
Reactivity:	QC Testing: Mouse
Storage Buffer:	Aqueous buffered solution containing $\leq 0.09\%$ sodium azide.

Description

The hamster anti-mouse H2-M3 antibody (clone 130) reacts with the H2-M3 major histocompatibility complex (MHC) non-classical class Ib antigen. H2-M3 (M3) associates with β 2-microglobulin and is capable of being expressed by most leukocytes. However, due to a lack of endogenous antigens, M3 has been reported to be undetectable on most cells. Its expression is induced by high-affinity *N*-formylated peptides from mitochondria, *Listeria monocytogenes*, and *Mycobacterium tuberculosis*. The induced expression of M3 is most efficient on antigen presenting cells. M3 presents antigen to cytotoxic T lymphocytes and may play a key role in protective immunity against the intracellular bacteria *L. monocytogenes* and *M. tuberculosis*. Furthermore, M3 is capable of presenting mitochondrial antigens for intrathymic positive selection of T-cell receptors which recognize those peptides.



Upregulation of H2-M3 expression by exogenous *N*-formylated peptide. C57BL/6 splenocytes were cultured overnight in the absence (left panel) or presence (right panel) of *N*-Formyl-Met-Leu-Phe-Phe peptide (Sigma-Aldrich). The cells were then stained with either purified hamster anti- mouse H2-M3 mAb (clone 130) (open histograms) or purified hamster IgG1, κ isotype control mAb (clone A19-3) (Cat. No. 553969, filled histograms), in the presence of Mouse BD Fc Block™ purified anti-mouse CD16/CD32, mAb (clone 2.4G2) (Cat. No. 553141, open and filled histograms), followed by PE mouse anti-hamster IgG cocktail (Cat. No. 554056, open and filled histograms). Flow cytometry was performed on a BD FACSCalibur™ instrument.

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
Immunoprecipitation	Reported

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Suggested Companion Products

Catalog Number	Name	Size	Clone
553969	Purified Hamster IgG1, κ Isotype Control	0.5 mg	A19-3
553141	Purified Rat Anti-Mouse CD16/CD32 (Mouse BD Fc Block™)	0.1 mg	2.4G2
554056	PE Mouse Anti-Armenian and Syrian Hamster IgG Cocktail	0.2 mg	(none)

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. 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/pharmingen/hamster_chart_11x17.pdf.
4. 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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