

Technical Data Sheet

FITC Mouse IgG1 κ Isotype Control

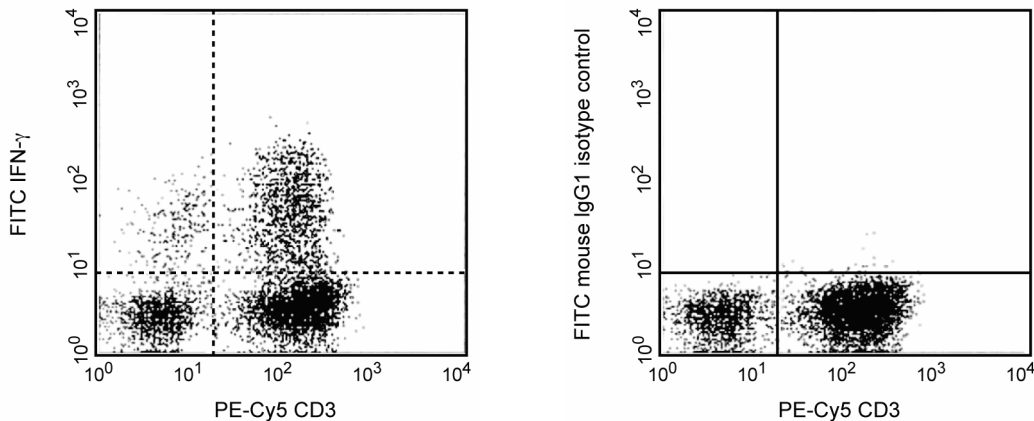
Product Information

Material Number:	554679
Size:	0.1 mg
Concentration:	0.5 mg/ml
Clone:	MOPC-21
Isotype:	Mouse (BALB/c) IgG1, κ
Storage Buffer:	Aqueous buffered solution containing ≤0.09% sodium azide.

Description

The MOPC-21 immunoglobulin is a mouse myeloma protein. The MOPC-21 immunoglobulin was selected as an isotype control following screening for low background on a variety of mouse and human tissues.

This antibody is routinely tested by flow cytometric analysis. Other applications were tested at BD Biosciences Pharmingen during antibody development only or reported in the literature.



Expression of IFN-γ by stimulated human peripheral blood mononuclear cells (PBMC). Human PBMC were stimulated for 6 hours with PMA (50 ng/ml final concentration; Sigma, Cat. No. P-8139) and calcium ionophore A23187 (250 ng/ml final concentration; Sigma, Cat. No. C-9275) in the presence of GolgiStop™ (2 μM final concentration; Cat. No. 554724). The PBMC were stained with PE-Cy5 (formerly referred to as BD-Cy-Chrome™) - anti-CD3 (Cy-Chrome™ - UCHT1, Cat. No. 555334), fixed, permeabilized, and subsequently stained with 0.25 μg of FITC-mouse anti-human IFN-γ antibody (FITC-4S.B3, Cat. No. 554551; left panel) or FITC-MOPC-21 immunoglobulin (0.25 μg; Cat. No. 554679; right panel) by using the BD Bioscience staining protocol. To demonstrate specificity of staining, the binding of FITC-4S.B3 was blocked by preincubation of fixed/permeabilized cells with excess unlabelled 4S.B3 antibody (5 μg; Cat. No. 554549). The quadrant markers for the bivariate dot plot were set based on autofluorescence controls and verified using the unlabelled 4S.B3 antibody blocking control.

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
Intracellular staining (flow cytometry)	Routinely Tested
Isotype control	Routinely Tested

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Recommended Assay Procedure:

Immunofluorescent Staining and Flow Cytometric Analysis: The FITC-MOPC-21 immunoglobulin (Cat. No. 554679) is a suitable mouse IgG1 isotype control for assessing the level of background staining on paraformaldehyde-fixed/saponin-permeabilized mouse or human cells for flow cytometric analysis. Use at comparable concentrations to antibody of interest (e.g., $\leq 0.5 \mu\text{g mAb}/1 \text{ million cells}$) (figure right panel).

Suggested Companion Products

Catalog Number	Name	Size	Clone
555028	BD Cytotfix/Cytoperm Plus Kit (with BD GolgiPlug)	250 tests	(none)
554715	BD Cytotfix/Cytoperm Plus Kit (with BD GolgiStop)	250 tests	(none)
554724	Protein Transport Inhibitor (Containing Monensin)	0.7 ml	(none)

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to www.bdbiosciences.com/pharmlingen/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

Prussin C, Metcalfe DD. Detection of intracytoplasmic cytokine using flow cytometry and directly conjugated anti-cytokine antibodies. *J Immunol Methods*. 1995; 188(1):117-128.(Biology: Flow cytometry)