Technical Data Sheet

Biotin Hamster Anti-Mouse CD119

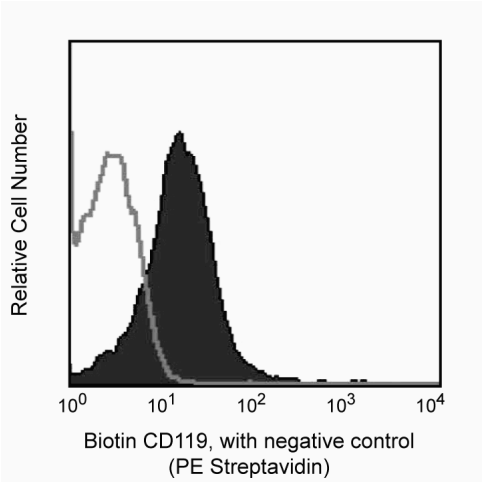
Product Information

Material Number:	**550482**
Alternate Name:	IFN-γ Receptor α chain
Size:	0.5 mg
Concentration:	0.5 mg/ml
Clone:	2E2
Immunogen:	Purified preparation of soluble recombinant mouse IFN-γRα chain protein
Isotype:	Armenian Hamster IgG1, κ
Reactivity:	QC Testing: Mouse
Storage Buffer:	Aqueous buffered solution containing ≤0.09% sodium azide.

Description

The 2E2 antibody recognizes the extracellular region of the 90 kDa alpha chain subunit of the mouse interferon-γ receptor (IFN-γRα; *aka*, CD119). The functionally active-form of the mouse IFN-γ receptor consists of two (or more) subunits, with IFN-γRα responsible for IFN-γ binding and both the IFN-γRα and IFN-γRβ chains required for the transduction of biologic responses. IFN-γRα is expressed by a variety of cell lines and normal mouse cells (except mature erythrocytes) including T cells, B cells, NK cells, monocytes, neutrophils, fibroblasts, epithelial and endothelial cells. The 2E2 antibody is a non-neutralizing antibody; it does not block the binding of IFN-γ to its receptor. The immunogen used to generate this hybridoma was a purified preparation of soluble recombinant mouse IFN-γRα chain protein.

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 cell surface IFN-γRα by BALB/c splenic lymphocytes. *RBC-lysed BALB/c spleen cells were preincubated (~15 minutes, 4°C) with purified 2.4G2 antibody [rat anti-mouse CD16 (FcγIII)/CD32 (FcγII); Cat. No. 553142; 1 µg antibody/10e6 cells]. The cells were stained (30 minutes, 4°C) with biotinylated 2E2 antibody (1 µg mAb/10e6 cells; Cat. No. 550482) followed by R-PE-conjugated streptavidin (Cat. No. 554061; 0.015 µg PE-SA/10e6 cells). After washing, the cells were analyzed with a FACScan™ Flow Cytometer. The immunofluorescent staining patterns for cells stained with either biotinylated 2E2 antibody (filled histogram) or Streptavidin-PE (background staining; empty histogram) are shown. The histograms were generated from reanalyzed flow cytometric data files that were gated for events with the light-scattering characteristics of lymphocytes.*

Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.
The antibody was conjugated with biotin under optimum conditions, and unreacted biotin 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:

Immunofluorescent Staining and Flow Cytometric Analysis: The biotinylated form of 2E2 (Cat. No. 550482) can be used for the immunofluorescent staining (≤ 1 µg antibody/10e6 cells) and flow cytometric analysis of normal mouse cells or cell lines to measure their expressed levels of IFN-γRα. It is recommended that the biotin format of this antibody be used in conjunction with streptavidin-phycoerythrin (PE) (Cat No. 554061) in a two-layer staining procedure to amplify immunofluorescent signals. (see figure). An appropriate purified immunoglobulin isotype control is clone A19-3 (Cat. No. 553970).

Note: 2E2 is a nonblocking antibody that can be used for the unobstructed immunofluorescent staining and flow cytometric analysis of cells in systems where the ligand (*i.e.,* IFN-γ) for IFN-γ receptors is present.

Immunoprecipitation: The 2E2 antibody has been reported to be useful for the immunoprecipitation of IFN-γRα chains from lysates of cloned mouse T cells. Please note that this application is not routinely tested at BD Biosciences Pharmingen.

Suggested Companion Products

Catalog Number	Name	Size	Clone
554061	PE Streptavidin	0.5 mg	(none)
553970	Biotin Hamster IgG1, κ Isotype Control	0.25 mg	A19-3
553142	Purified Rat Anti-Mouse CD16/CD32 (Mouse BD Fc Block™)	0.5 mg	2.4G2

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

Bach EA, Szabo SJ, Dighe AS, et al. Ligand-induced autoregulation of IFN-gamma receptor beta chain expression in T helper cell subsets. *Science.* 1995; 270(5239):1215-1218.(Clone-specific: Immunoprecipitation)

Zola H. Detection of cytokine receptors by flow cytometry. In: Coligan JE, Kruisbeek AM, Margulies DH, Shevach EM, Strober W, ed. *Current Protocols in Immunology.* New York: Green Publishing Associates and Wiley-Interscience; 1995:6.21.1-6.21.18.(Clone-specific: Flow cytometry)