Technical Data Sheet

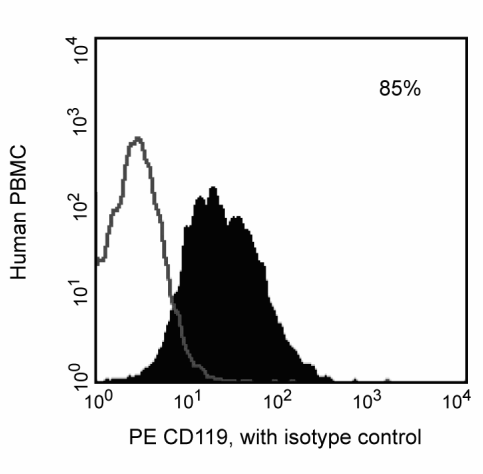
PE Mouse Anti-Human CD119

Product Information

Material Number:	**558934**
Alternate Name:	IFN gamma Receptor alpha chain
Size:	0.2 mg
Concentration:	0.2 mg/ml
Clone:	GIR-208
Immunogen:	Human IFN-γRα
Isotype:	Mouse IgG1, κ
Reactivity:	QC Testing: Human
Storage Buffer:	Aqueous buffered solution containing ≤0.09% sodium azide.

Description

The GIR-208 antibody recognizes the extracellular region of CD119 which is also known as the alpha chain subunit (80-95 kDa glycoprotein) of the human interferon-γ receptor (IFN-γRα). The functionally active-form of the human IFN-γ receptor consists of two (or more) subunits, with IFN-γRα responsible for IFN-γ binding and both the IFN-γRα and β chains required for the transduction of biologic responses. The IFN-γ receptor α chain (CD119) is expressed on the surface of most human cells (except mature erythrocytes) including monocytes, macrophages, T cells, B cells, NK cells, neutrophils, fibroblasts, epithelial cells, and endothelium. Binding of 125I-labeled GIR-208 antibody to IFN-γRα+ cells is reported to be specifically inhibited in the presence of excess IFN-γ. GIR-208 does not cross react with IFN-γ as tested by ELISA. The ability of this antibody to bind to IFN-γ receptors of species other than human has not been determined. The immunogen used to generate this hybridoma was human IFN-γRα purified from human placenta. The GIR- 208 has been reported to block the binding of 125I-human IFN-γ to IFN-γRα+ cells as well as purified, soluble human IFN-γRα. GIR-208 is a neutralizing antibody that has been shown to neutralize the anti-viral activity of IFN-γ on WISH cells in a dose-dependent fashion.



Human PBMC were isolated by Lymphoprep (Nycomed) density centrifugation. *The cells were stained with R-PE conjugated GIR-208 (0.25 µg Cat. No. 558934). Staining with the GIR-208 antibody (filled histograms) is compared to staining obtained using R-PE- conjugated immunoglobulin isotype control (MOPC-21, 0.25 µg) (open histograms). Histograms in Figure 1 are gated on the lymphocyte population defined by its light scattering characteristics.*

Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.
The antibody was conjugated with R-PE under optimum conditions, and unconjugated antibody and free PE were removed.
Store undiluted at 4°C and protected from prolonged exposure to light. Do not freeze.

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Application Notes

Application

Flow cytometry	Routinely Tested

Neutralization Activity:
In vitro neutralization: The NA/LE. format of this antibody (Cat No. 557531) is useful for bioassay.
Recommended Assay Procedure:
Immunofluorescent staining and flow cytometric analysis: The R-PE conjugated GIR-208 antibody (Cat. No. 558934) can be used for the immunofluorescent staining (≤ 1 µg antibody/10[6] cells) and flow cytometric analysis of the levels of membrane IFN-γRα expressed by human cell lines or human lymphoid cells. An appropriate R-PE conjugated immunoglobulin isotype control is the clone MOPC-21 (Cat. No. 554680).

Since GIR-208 is a neutralizing antibody, it competes with IFN-γ for binding to its receptor. Therefore, the use of the GIR-208 antibody for immunofluorescent staining and flow cytometric analysis in systems where the natural ligand of the receptor is present may give an underestimation of IFN-γRα chain expression. Based on our testing results, the presence of recombinant human IFN-γ protein at levels above 200 ng/ml is sufficient to completely inhibit the binding of the GIR-208 antibody (at 0.06 µg/10[6] cells). In such cases, it is recommended that the investigator uses a non-neutralizing antibody to detect IFN-γRα chain expression by flow cytometry, such as the clone GIR-94 (Cat. No. 558937).

WB: The GIR-208 antibody has been reported to be useful for Western blotting. Please note that this application is not routinely tested at BD Biosciences Pharmingen.

Suggested Companion Products

Catalog Number	Name	Size	Clone
554680	PE Mouse IgG1, κ Isotype Control	0.1 mg	MOPC-21
558937	PE Mouse Anti-Human CD119	0.2 mg	GIR-94
557531	Purified Mouse Anti-Human CD119	each	20/EIF-5

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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Sheehan KC, Calderon J, Schreiber RD. Generation and characterization of monoclonal antibodies specific for the human IFN-gamma receptor. *J Immunol.* 1988; 140(12):4231-4237.(Immunogen: Neutralization, Western blot)
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