

Technical Data Sheet

Purified NA/LE Mouse Anti-Human IFN- γ

Product Information

Material Number:	554698
Alternate Name:	IFNG; Interferon-gamma; Interferon- γ ; Type II interferon; MAF
Size:	0.5 mg
Concentration:	1.0 mg/ml
Clone:	B27
Immunogen:	Human IFN- γ Recombinant Protein
Isotype:	Mouse IgG1, κ
Reactivity:	QC Testing: Human
Storage Buffer:	No azide/low endotoxin: Aqueous buffered solution containing no preservative, 0.2 μ m sterile filtered. Endotoxin level is \leq 0.01 EU/ μ g (\leq 0.001 ng/ μ g) of protein as determined by the LAL assay.

Description

The B27 monoclonal antibody specifically binds to human interferon- γ (IFN- γ). IFN- γ is a potent multifunctional cytokine that is produced by several activated cell types including NK, NKT, CD4+TCR $\alpha\beta$ +, CD8+TCR $\alpha\beta$ +, and TCR $\gamma\delta$ + T cells. IFN- γ exerts its biological effects through specific binding to the high-affinity IFN- γ Receptor Complex comprised of IFN- γ R α (CD119) and IFN- γ R β subunits. In addition to its antiviral effects, IFN- γ upregulates a number of lymphoid cell functions including the antimicrobial and antitumor responses of macrophages, NK cells, and neutrophils. In addition, IFN- γ can exert strong regulatory influences on the proliferation, differentiation, and effector responses of B cell and T cell subsets. These influences can involve IFN- γ 's capacity to boost MHC class I and II expression by antigen-presenting cells as well as to direct effects on B cells and T cells themselves. Human IFN- γ is a 14-18 kDa glycoprotein containing 143 amino acid residues. B27 is a neutralizing antibody. The use of B27 antibody for epitope mapping of human IFN- γ has been described. The B27 antibody has been reported not to bind to denatured IFN- γ .

Preparation and Storage

Store undiluted at 4°C.

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

This preparation contains no preservatives, thus it should be handled under aseptic conditions.

Application Notes

Application

Intracellular staining (flow cytometry)	Routinely Tested
Neutralization	Tested During Development
Immunoprecipitation	Reported
Western blot	Reported
Blocking	Reported

Neutralization Activity:

This antibody has been reported to be useful for the neutralization of human IFN- γ anti-viral activity. Neutralization activity may be measured with an encephalomyocarditis viral (EMCV) resistance assay using 1 ng/mL recombinant human IFN- γ (Cat. No. 554616) with A549 indicator cells.

50% Neutralization (ND50) at 2 - 50 ng/mL

\geq 95% Neutralization at 100 - 300 ng/mL

Suggested Companion Products

Catalog Number	Name	Size	Clone
554721	Purified NA/LE Mouse IgG1 κ Isotype Control	0.5 mg	107.3
554616	Recombinant Human IFN- γ	25 μ g	(none)

Product Notices

- Since applications vary, each investigator should titrate the reagent to obtain optimal results.
- Please refer to wwwbdbiosciences.com/pharmingen/protocols for technical protocols.

References

Favre C, Wijdenes J, Cabrillat H, Djossou O, Banchereau J, de Vries JE. Epitope mapping of recombinant human gamma interferon using monoclonal antibodies. *Mol Immunol*. 1989; 26(1):17-25. (Clone-specific: Immunoprecipitation, Neutralization, Western blot)

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. (Methodology: Blocking)

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