

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 Tested in Development: Rhesus, Cynomolgus, Baboon
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), a 14-18 kDa glycoprotein containing 143 amino acid residues. IFN- γ is a potent multifunctional cytokine 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 anti-tumor responses of macrophages, NK cells, and neutrophils. In addition, IFN- γ influences the regulation of 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 direct effects on B cells and T cells themselves. 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 a 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

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. An isotype control should be used at the same concentration as the antibody of interest.
3. Species testing during development may have been performed with a different format of the same clone. Selected applications have been tested for cross-reactivity.
4. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.

BD Biosciences

bdbiosciences.com

United States Canada Europe Japan Asia Pacific Latin America/Caribbean
877.232.8995 866.979.9408 32.2.400.98.95 0120.8555.90 65.6861.0633 55.11.5185.9995

For country contact information, visit bdbiosciences.com/contact

Conditions: The information disclosed herein is not to be construed as a recommendation to use the above product in violation of any patents. BD Biosciences will not be held responsible for patent infringement or other violations that may occur with the use of our products. Purchase does not include or carry any right to resell or transfer this product either as a stand-alone product or as a component of another product. Any use of this product other than the permitted use without the express written authorization of Becton, Dickinson and Company is strictly prohibited.

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Not for resale.

© 2016 BD. BD, the BD Logo and all other trademarks are property of Becton, Dickinson and Company.

554698 Rev. 6



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)
- Fonteneau JF, Le Drean E, Le Guiner S, Gervois N, Diez E, Jotereau F. Heterogeneity of biologic responses of melanoma-specific CTL. *J Immunol*. 1997; 159(6):2831-2839. (Biology)
- 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)
- Rotteveel FT, Kokkelink I, van Lier RA, et al. Clonal analysis of functionally distinct human CD4+ T cell subsets. *J Exp Med*. 1988; 168(5):1659-1673. (Biology)