

Anti-Mouse IFN-gamma Antibody, Clone XMG1.2, Biotin



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Antibodies

Rat monoclonal IgG1 antibody
against mouse IFN-gamma,
biotin-conjugated

Catalog #100-0283
Catalog #100-0284

25 µg 0.5 mg/mL
100 µg 0.5 mg/mL

Product Description

The XMG1.2 antibody reacts with mouse interferon-gamma (IFN- γ), a glycosylated type II interferon comprising a homodimer of ~20 kDa subunits in its active form. IFN- γ is produced primarily by activated T lymphocytes and natural killer (NK) cells in response to antigens, including alloantigens, mitogens, and enterotoxins. IFN- γ binds with high affinity to the α subunit of the IFN- γ receptor, resulting in the ligand-induced assembly of a tetrameric $\alpha 2\beta 2$ receptor complex capable of mediating the cellular response to the cytokine through activation of the JAK-STAT pathway. The IFN- γ receptor is expressed on the surface of all nucleated cells. IFN- γ has important functions in a wide range of biological processes, including macrophage activation, mediating the immune response to viruses and bacteria, and modulating cellular proliferation and apoptosis. The XMG1.2 antibody is suitable for detection of intracellular IFN- γ by methods such as flow cytometry, when paired with an appropriate secondary antibody. The XMG1.2 antibody is also widely used in various assays to neutralize the functional activity of IFN- γ .

Target Antigen Name:	Interferon-gamma
Alternative Names:	IFN- γ , Immune interferon, Interferon-gamma, Macrophage-activating factor (MAF), T cell interferon, Type II interferon
Gene ID:	15978
Species Reactivity:	Mouse
Host Species:	Rat
Clonality:	Monoclonal
Clone:	XMG1.2
Isotype:	IgG1, kappa
Immunogen:	Mouse recombinant IFN- γ expressed in E. coli
Conjugate:	Biotin

Applications

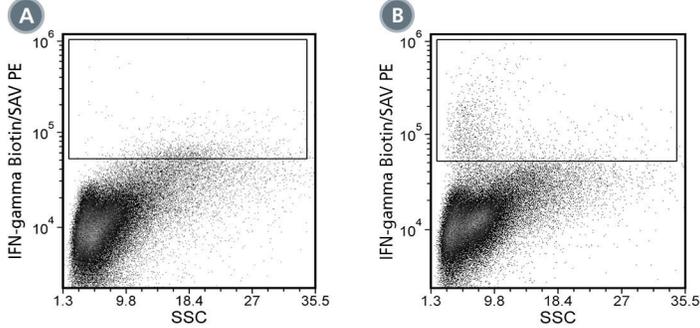
Verified:	FC
Reported:	ELISA, ELISpot, FC

Abbreviations: CellSep: Cell separation; ChIP: Chromatin immunoprecipitation; FA: Functional assay; FACS: Fluorescence-activated cell sorting; FC: Flow cytometry; ICC: Immunocytochemistry; IF: Immunofluorescence microscopy; IHC: Immunohistochemistry; IP: Immunoprecipitation; RIA: Radioimmunoassay; WB: Western blotting

Properties

Formulation:	Phosphate-buffered saline, pH 7.2, containing 0.09% sodium azide
Purification:	The antibody was purified by affinity chromatography and conjugated with biotin under optimal conditions. The solution is free of unconjugated biotin.
Stability and Storage:	Product stable at 2 - 8°C when stored undiluted. Do not freeze. Protect product from prolonged exposure to light. Stable until expiry date (EXP) on label.
Directions for Use:	For flow cytometry, the suggested use of this reagent is ≤ 0.25 µg per 1×10^6 cells in 100 µL. It is recommended that the antibody be titrated for optimal performance for each application.

Data



(A) Flow cytometry analysis of unstimulated C57BL/6 mouse splenocytes labeled with Anti-Mouse IFN- γ Antibody, Clone XMG1.2, Biotin, followed by streptavidin (SAV) PE.

(B) Flow cytometry analysis of PMA/ionomycin-stimulated C57BL/6 mouse splenocytes labeled with Anti-Mouse IFN- γ Antibody, Clone XMG1.2, Biotin, followed by SAV PE.

Related Products

For a complete list of antibodies, including other conjugates, sizes, and clones, as well as related products available from STEMCELL Technologies, visit www.stemcell.com/antibodies or contact us at techsupport@stemcell.com.

References

1. Takenaka E et al. (2018) Selective DNAM-1 expression on small peritoneal macrophages contributes to CD4+ T cell costimulation. *Sci Rep* 8(1): 15180. (FC)
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3. Zhang J et al. (2018) Cyclin D-CDK4 kinase destabilizes PD-L1 via cullin 3-SPOP to control cancer immune surveillance. *Nature* 553(7686): 91–5. (FA, FC)
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7. De Luca A et al. (2013) IL-22 and IDO1 Affect immunity and tolerance to murine and human vaginal candidiasis. *PLoS Pathog* 9(7): e1003486. (IF, IHC)

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