Antibodies

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

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

Catalog #100-0277	25 µg	0.2 mg/mL
Catalog #100-0278	100 µg	0.2 mg/mL

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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 α2β2 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:	APC (Allophycocyanin)

Applications

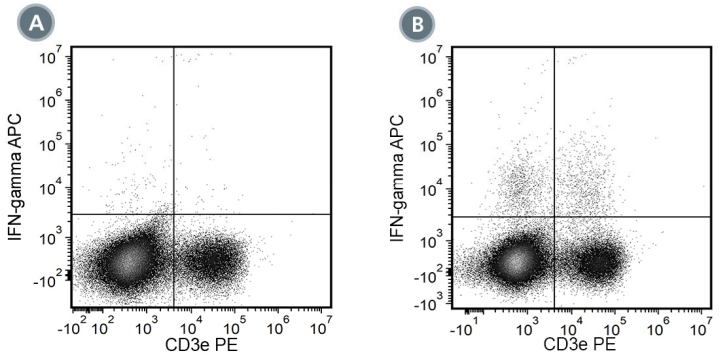
Verified:	FC
Reported:	FC

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 and 0.1% gelatin
Purification:	The antibody was purified by affinity chromatography and conjugated with APC under optimal conditions. The solution is free of unconjugated APC.
Stability and Storage:	Product stable at 2 - 8°C when stored undiluted. Do not freeze. Protect product from prolonged exposure to light. For product expiry date, please contact techsupport@stemcell.com.
Directions for Use:	For flow cytometry, the suggested use of this reagent is ≤ 0.06 µg per 1 x 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-gamma Antibody, Clone XMG1.2, APC, and anti-mouse CD3e antibody, clone 145-2C11, PE.
(B) Flow cytometry analysis of PMA/ionomycin-stimulated C57BL/6 mouse splenocytes labeled with Anti-Mouse IFN-gamma Antibody, Clone XMG1.2, APC, and anti-mouse CD3e antibody, clone 145-2C11, 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)
2. Zhang CJ et al. (2018) Act1 is a negative regulator in T and B cells via direct inhibition of STAT3. Nat Commun 9(1): 2745. (FA/Neutralization, FC)
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)
4. Penberthy KK et al. (2017) Ex vivo modulation of the Foxo1 phosphorylation state does not lead to dysfunction of T regulatory cells. PLoS One 12(3): e0173386. (FC)
5. Sutton CE et al. (2017) Loss of the molecular clock in myeloid cells exacerbates T cell-mediated CNS autoimmune disease. Nat Commun 8(1): 1923. (ELISA, FC)
6. Wu J et al. (2015) Immune activation caused by vascular oxidation promotes fibrosis and hypertension. J Clin Invest 126(1): 50–67. (FC)
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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