

Ultra-LEAF™ Purified anti-mouse IFN-γ Antibody

Catalog# / Size	505711 / 25 mg 505712 / 50 mg 505713 / 100 mg 505708 / 100 µg 505709 / 1 mg 505710 / 5 mg
Clone	R4-6A2
Regulatory Status	RUO
Other Names	Interferon-γ, Immune interferon, Type II interferon, T cell interferon, Macrophage-activating factor (MAF), IFN-g, IFN-gamma
Isotype	Rat IgG1, κ
Description	Interferon-γ is a potent multifunctional cytokine which is secreted primarily by activated NK cells and T cells. Originally characterized based on anti-viral activities, IFN-γ also exerts anti-proliferative, immunoregulatory, and proinflammatory activities. IFN-γ can upregulate MHC class I and II antigen expression by antigen-presenting cells.

Product Details

Verified Reactivity	Mouse
Antibody Type	Monoclonal
Host Species	Rat
Immunogen	Partially-purified, native mouse IFN-γ
Formulation	0.2 µm filtered in phosphate-buffered solution, pH 7.2, containing no preservative. Endotoxin level is < 0.01 EU/µg of the protein (< 0.001 ng/µg of the protein) as determined by the LAL test.
Preparation	The Ultra-LEAF™ (Low Endotoxin, Azide-Free) antibody was purified by affinity chromatography.
Concentration	The antibody is bottled at the concentration indicated on the vial, typically between 2 mg/mL and 3 mg/mL. Older lots may have also been bottled at 1 mg/mL. To obtain lot-specific concentration, please enter the lot number in our Concentration and Expiration Lookup or Certificate of Analysis online tools.
Storage & Handling	The antibody solution should be stored undiluted between 2°C and 8°C. This Ultra-LEAF™ solution contains no preservative; handle under aseptic conditions.
Application	ELISA Capture - Quality tested ELISPOT Capture, IHC-F, Neut - Reported in the literature, not verified in house
Recommended Usage	Each lot of this antibody is quality control tested by ELISA assay . For ELISA capture applications, a concentration range of 0.5 - 2.0 µg/mL is recommended. To obtain a linear standard curve, serial dilutions of IFN-γ recombinant protein ranging from 2000 to 15 pg/mL are recommended for each ELISA plate. It is recommended that the reagent be titrated for optimal performance for each application.
Application Notes	ELISA Capture ^{1,4,6,10,11} or ELISPOT Capture ⁵ : The purified R4-6A2 antibody is useful as the capture antibody in a sandwich ELISA or ELISPOT assay, when used in conjunction with the biotinylated XMG1.2 antibody (Cat. No. 505804) as the detecting antibody and recombinant mouse IFN-γ (Cat. No. 575309) as the standard. The Ultra-LEAF™ purified antibody is suggested for ELISPOT capture. For ELISPOT Capture, the suggested use of this antibody is 1.0 - 4.0 µg/mL. ELISA or ELISPOT Detection : The biotinylated R4-6A2 antibody is useful as the detecting antibody in a sandwich ELISA or ELISPOT assay, when used in conjunction with the purified XMG1.2 antibody (Cat. Nos. 505802 & 505812) as the capture antibody and recombinant mouse IFN-γ (Cat. No. 575309) as the standard. Neutralization ^{1,2,9} : The Ultra-LEAF™ purified antibody (Endotoxin <0.01 EU/µg, Azide-Free, 0.2 µm filtered) is recommended for neutralization of mouse IFN-γ bioactivity <i>in vivo</i> and <i>in vitro</i> (Cat. Nos. 505708 - 505713). Additional reported applications (for the relevant formats) include : immunohistochemical

staining^{3,6,8} of acetone-fixed frozen tissue sections.

Note: For testing mouse IFN- γ in serum, plasma or supernatant, BioLegend's ELISA Max™ Sets (Cat. No. 430801 and 430804) are specially developed and recommended.

Application References

(PubMed link indicates BioLegend citation)

1. Abrams J, *et al.* 1992. *Immunol. Rev.* 127:5.
2. Stevenson M, *et al.* 1990. *Infect. Immun.* 58:3225.
3. Sander B, *et al.* 1993. *J. Immunol. Meth.* 166:201.
4. Yang X, *et al.* 1993. *J. Immunoassay* 14:129.
5. Klinman D, *et al.* 1994. *Curr. Prot. Immunol.* John Wiley and Sons, New York. Unit 6.19.
6. Sander B, *et al.* 1991. *Immunol. Rev.* 119:65.
7. Finkelman F, *et al.* 2003. *Curr. Prot. Immunol.* John Wiley & Sons, New York. Unit 6.28.
8. Khanna A, *et al.* 2000. *J. Immunol.* 164:1346.
9. Terrazas LI, *et al.* 2005. *Intl. J. Parasitology.* 35:1349.
10. Dzhagalov I, *et al.* 2007. *J. Immunol.* 178:2113.
11. Xu G, *et al.* 2007. *J. Immunol.* 179:5358.

RRID

AB_2832807 (BioLegend Cat. No. 505711)
AB_2832808 (BioLegend Cat. No. 505712)
AB_2832809 (BioLegend Cat. No. 505713)
AB_2832804 (BioLegend Cat. No. 505708)
AB_2832805 (BioLegend Cat. No. 505709)
AB_2832806 (BioLegend Cat. No. 505710)

Antigen Details

Structure	Cytokine; dimer; 40-80 kD (Mammalian)
Bioactivity	Antiviral/antiparasitic activities; inhibits proliferation; enhances MHC class I and II expression on APC
Cell Sources	CD8 ⁺ and CD4 ⁺ T cells, NK cells
Cell Targets	T cells, B cells, macrophages, NK cells, endothelial cells, fibroblasts
Receptors	IFN- γ R α (CDw119) dimerized with IFN- γ R β (AF-1)
Cell Type	Tregs
Biology Area	Cell Biology, Immunology, Neuroinflammation, Neuroscience
Molecular Family	Cytokines/Chemokines
Antigen References	<ol style="list-style-type: none">1. Fitzgerald K, <i>et al.</i> Eds. 2001. The Cytokine FactsBook. Academic Press, San Diego.2. De Maeyer E, <i>et al.</i> 1992. <i>Curr. Opin. Immunol.</i> 4:321.3. Farrar M, <i>et al.</i> 1993. <i>Annu. Rev. Immunol.</i> 11:571.4. Gray P, <i>et al.</i> 1987. <i>Lymphokines</i> 13:151.
Regulation	Upregulated by IL-2, FGF-basic, EGF; downregulated by 1- α -25-Dihydroxy vitamin D3, dexamethasone
Gene ID	15978

Related Protocols

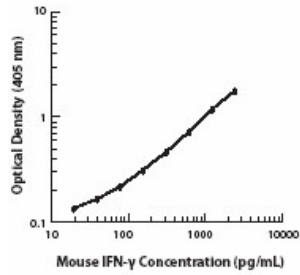
Active Protocols: [Sandwich ELISA - Video](#)

[Sandwich ELISA Protocol](#)

Other Formats

Biotin anti-mouse IFN- γ , Purified anti-mouse IFN- γ , Ultra-LEAF™ Purified anti-mouse IFN- γ

Product Data



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