Mouse IFN-β Antibody

Monoclonal Rat IgG_1 Clone # 944213

Catalog Number: MAB82341

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects Mouse IFN-β in direct ELISAs.
Source	Monoclonal Rat IgG_1 Clone # 944213
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Human embryonic kidney cell HEK293-derived Mouse IFN-β Ile22-Asn182 Accession # P01575
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 μm filtered solution in PBS.

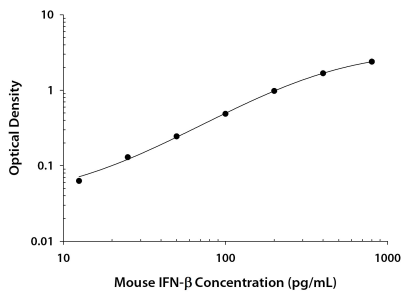
APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

ELISA	This antibody functions as an ELISA detection antibody when paired with Rat Anti-Mouse IFN-β Monoclonal Antibody (Catalog # MAB82342). *This product is intended for assay development on various assay platforms requiring antibody pairs. We recommend the Mouse IFN-beta DuoSet ELISA Kit (Catalog # DY8234-05) for convenient development of a sandwich ELISA or the Mouse IFN-beta Quantikine ELISA Kit (Catalog # MIFNB0) for a complete optimized ELISA.*

DATA

ELISA



Mouse IFN-beta ELISA Standard Curve. Recombinant Mouse IFN-beta protein was serially diluted 2-fold and captured by Rat Anti-Mouse IFN-beta Monoclonal Antibody (Catalog # MAB82342) coated on a Clear Polystyrene Microplate (Catalog # DY990). Rat Anti-Mouse IFN-beta Monoclonal Antibody (Catalog # MAB82341) was biotinylated and incubated with the protein captured on the plate. Detection of the standard curve was achieved by incubating Streptavidin-HRP (Catalog # DY998) followed by Substrate Solution (Catalog # DY999) and stopping the enzymatic reaction with Stop Solution (Catalog # DY994).

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** • 12 months from date of receipt, -20 to -70 °C as supplied. • 1 month, 2 to 8 °C under sterile conditions after reconstitution. • 6 months, -20 to -70 °C under sterile conditions after reconstitution.

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BACKGROUND

Interferon beta (IFN-β), also known as fibroblast IFN, is a secreted, approximately 22 kDa member of the type I interferon family of molecules (1). Mature mouse IFN-β shares 75% and 47% amino acid sequence identity with the rat and human proteins, respectively. Fibroblasts are the major producers of IFN-β, but it can also be produced by dendritic cells, macrophages, and endothelial cells in response to pathogens (2). It is transcriptionally regulated by TRAF3, IRF3, IRF7, and NF-κB (3, 4). IFN-β-deficient mice show increased susceptibility to experimental autoimmune encephalomyelitis (EAE), a disease model of human multiple sclerosis (MS) (5). Furthermore, IFN-β has been shown to suppress the Th17 cell response in both MS and EAE and has commonly been used as a treatment for MS (6-10). IFN-β can additionally induce the expression of the anti-inflammatory cytokine IL-10 (11).

References:

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5. Teige, I. *et al.* (2003) J. Immunol. **170**:4776.
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