Mouse IFN-alpha 4 Antibody

Monoclonal Rat IgG_{2A} Clone # 1020125

Catalog Number: MAB10259

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse IFN-alpha 4 in direct ELISAs. In direct ELISAS, no cross-reactivity with recombinant mouse IFNA-1, -2, -6, -7, -9, -11, -12, -13, -15 or -16 is observed.
Source	Monoclonal Rat IgG_{2A} Clone # 1020125
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Human embryonic kidney cell HEK293-derived mouse IFN-alpha 4 Leu23-Glu186 Accession # P07351
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.

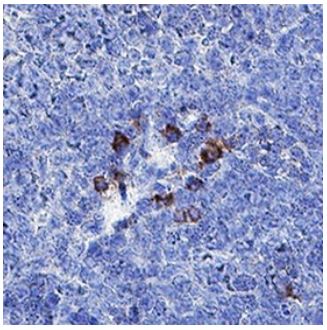
APPLICATIONS

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.*

	Recommended Concentration	Sample
Immunohistochemistry	5-25 µg/mL	See Below

DATA

Immunohistochemistry



IFN-alpha 4 in Mouse Spleen. IFN-alpha 4 was detected in immersion fixed paraffin-embedded sections of mouse spleen using Rat Anti-Mouse IFN-alpha 4 Monoclonal Antibody (Catalog # MAB10259) at 5 µg/mL for 1 hour at room temperature followed by incubation with the Anti-Rat IgG VisUCyte™ HRP Polymer Antibody (Catalog # VC005). Before incubation with the primary antibody, tissue was subjected to heat-induced epitope retrieval using Antigen Retrieval Reagent-Basic (Catalog # CTS013). Tissue was stained using DAB (brown) and counterstained with hematoxylin (blue). Specific staining was localized to macrophages. View our protocol for IHC Staining with VisUCyte HRP Polymer Detection Reagents.

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.

BACKGROUND

The interferons (IFN) are a family of cytokines with potent antiviral, antiproliferative and immunomodulatory properties, and are classified based on their binding specificity to cell surface receptors (1). The type I IFNs bind to the interferon alpha receptor (IFNAR), which consists of two subunits: IFNAR1 (α-subunit) and IFNAR2 (β-subunit). This binding contributes to TNF-alpha induced signaling (2, 3). Both the human and mouse genome code for more than a dozen closely related IFN-alpha subtypes and the various IFN-alphas share about 80% sequence homology among them (4, 5). The mouse IFN-alpha 4 consists of 186 amino acids (aa) including a 24 aa signal peptide and a 162 aa IFN-alpha 4 mature domain. The mature mouse IFN-alpha 4 shares 58% and 76% sequence identity with mature human and rat IFN-alpha 4, respectively. The mouse IFN-alpha 4 reduces the local replication of murine cytomegalovirus in the tibia muscle (6). mIFN-A4 is a strong activator of Mx gene and was shown to be very effective in reducing splenomegaly (7).

References:

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3. Matsumiya, T. *et al.* (2007) J. Immunol. **179**:4542.
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5. van Pesch, V. *et al.* (2004) J. Virol. **78**:8219.
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7. Gerlach, N. *et al.* (2009) European J. Immunol. **39**:136.

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