Mouse IFN-alpha 2/IFNA2 Antibody

Monoclonal Rat IgG_{2A} Clone # 996586

Catalog Number: MAB10149

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse IFN-alpha 2/IFNA2 in direct ELISA. In direct ELISAs, no cross-reactivity with mouse IFN-alpha 1, 4, 9, 11, 12 and 15 was observed.
Source	Monoclonal Rat IgG_{2A} Clone # 996586
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Human embryonic kidney cell, HEK293-derived mouse IFN-alpha 2/IFNA2 Cys24-Glu190 Accession # P01573
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 capture antibody when paired with mouse anti-IFNA-2 Monoclonal Antibody (Catalog # MAB101491). This product is intended for assay development on various assay platforms requiring antibody pairs.

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

Interferon-alpha 2 (IFNα-2) is one of 14 subtypes within the IFN-α class of Type I Interferons (1). The members of the IFN-α class, also known as alpha leukocyte interferons, encompass a group of distinct but closely related proteins which share approximately 80% amino acid (aa) sequence identity and have a similar globular structure composed of five alpha-helices (1, 3, 4). IFN-α class members signal through a common cell surface receptor complex composed of IFN-αR2 and IFN-αR1 subunits (3). As the first highly active IFN to be cloned and produced, IFNα-2 has become the prototypic IFN for academic and pharmaceutical research (2). The mature extracellular domain (ECD) of mouse IFNα-2 shares 60% and 83% aa sequence identity with human and rat, respectively. Murine IFN-α2 can eliminate cardiac viral load and protect cardiomyocytes from injury in animals infected with coxsackievirus B3 (CVB3) (5). IFN α-2 derived mutants with reduced IFNR2 binding inhibited HIV replication and mutants with more IFNAR1 binding potentiated antiviral activity (6).

References:

1. Pestka, S. (2007) J Biol Chem. **282**:20047.
2. Paul, F. *et al.* (2015) Gene. **567(2)**:132.
3. Oritani, K. *et al.* (2001). Cytokine & Growth Factor Reviews, **12**:337.
4. Pesch, V. *et al.* (2004). Journal of Virology, **78**:8219.
5. Wang, Y.X. *et al.* (2007) Am J Physiol Heart Circ Physiol. **293**:H69.
6. Schlaepfer, E. *et al.* (2019) Am Soc for Microbiology **4**:e00637.

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