Product Information

- Name: IFN-alpha 1/IFNA1 Protein, Mouse (HEK293, hFc)
- Accession Number: P01572 (C24-K189)
- Predicted Molecular Weight: 45.9 kDa
- Apparent Molecular Weight: Approximately 45-60 kDa, based on SDS-PAGE under reducing conditions, due to glycosylation.
- Appearance: Sterile powder (lyophilized).
- Source/Expression System: Recombinant mouse-derived protein, expressed in HEK293 cells.
- Tag: C-terminal hFc (human IgG Fc) tag.
- Purity: ≥ 95%, as determined by reducing Tris-Bis PAGE.
- Endotoxin Level: <1 EU/μg, determined by LAL method.
- Glycosylation: Yes.

Biological Activity

- Target and Mechanism: IFN-alpha 1a is a cytokine synthesized by macrophages. It exhibits robust antiviral activities by stimulating key enzymes—a protein kinase and an oligoadenylate synthetase—enhancing the host's immune defenses against viral threats.
- Binding Activity: Measured by its binding ability in a SPR assay (Biacore T200). Human IFN alpha/beta R1, His Tag captured on a CM5 Chip via

anti-his antibody can bind Mouse IFN alpha 1, hFc Tag with an affinity constant of 11.96 nM.

- Handling and Storage

- Composition: Lyophilized from a 0.22 μm filtered solution of PBS, pH 7.4, with 8% trehalose.
- Reconstitution:It is recommended to reconstitute to a concentration of ≥ 100 μg/mL in ddH_2O.
- Centrifuge the vial briefly before opening to collect all lyophilized powder at the bottom.
- For long-term storage, it is recommended to add a carrier protein (e.g., 0.1% BSA, 5% HSA, 10% FBS, or 5% Trehalose) after reconstitution.
- After reconstitution, it is stable at 4°C for 1 week or at -20°C for longer periods (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage. Avoid repeated freeze-thaw cycles.
- Storage: Lyophilized powder: Stored at -20°C for up to 2 years from the date of receipt.

Precautions

- This product is for research use only and must not be used for clinical diagnosis or treatment.

- Carrier proteins (e.g., 0.1% BSA, 5% HSA, 10% FBS, or 5% Trehalose) are recommended for long-term storage after reconstitution to prevent protein loss due to adsorption to tube walls. Choose a carrier that does not interfere with your specific experiment.
- Always handle according to standard laboratory safety regulations.