

IFN-alpha 2b/IFNA2 Protein, Human

Cat. No.:	HY-P7023
Synonyms:	rHuIFN- α 2b; IFNA; INFA2; IFN- α 2b
Species:	Human
Source:	E. coli
Accession:	P01563 (C24-E188)
Gene ID:	3440
Molecular Weight:	17-21 kDa

PROPERTIES

AA Sequence	<p> CDLPQTHSLG SRRTLMLLAQ MRRISLFSCL KDRHDFGFPPQ EEEFGNQFQKA ETIPVLHEMI QQIFNLFSTK DSSAAWDETL LDKFYTELYQ QLNDLEACVI QGVGVTEPL MKEDSILAVR KYFQRITLYL KEKKYSPCAW EVVRAEIMRS FSLSTNLQES LRSKE </p>
Biological Activity	<p>1. The ED₅₀ is <0.4 ng/mL as measured by TF-1 cells, corresponding to a specific activity of >2.5 × 10⁶ units/mg.</p> <p>2. Measured in antiviral assay using A549 human lung cancer cells infected with vesicular stomatitisvirus (VSV) The ED₅₀ for this effect is <5 ng/mL.</p>
Appearance	Lyophilized powder
Formulation	Lyophilized after extensive dialysis against PBS pH 7.4 or 20 mM PB, 150 mM NaCl, pH 7.2.
Endotoxin Level	<1 EU/ μ g, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 μ g/mL in ddH ₂ O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	<p>IFN-alpha 2 (IFNA2; IFN-α2), belongs to the type I interferon family, produced by the plasmacytoid dendritic cells (pDCs) exposure to HIV-1BaL in order to inhibit viral infection^[1].</p> <p>Interferon (IFN) is originally identified as a substance 'interfering' with viral replication in vitro. IFN-α/β and related</p>
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molecules are classified as type I IFNs, as for the other two types of type II IFN (IFN- γ) and type III IFNs (IFN- λ), respectively^[2]. IFN-alpha 2 subtype is the only one that is currently licensed to treat infections caused by hepatitis B virus (HBV) and HCV^[3]. IFN-alpha 2 shows a Sortilin-dependent trafficking in cells and increases the expression level of interferon-stimulated genes (ISGs) in HIV-infected cells^{[1][4]}. It also exhibits cytotoxic activity against CD8⁺ T cells and enhances CD4⁺ T cell depletion^[3]. Among the IFN-alpha 2 alleles, IFN-alpha 2b is being the predominant allele while IFN α -2a is less predominant and IFN α -2c only a minor allelic variant^[5].

IFN-alpha 2 has a broad application in research of cancer, including some hematological malignancies and solid tumors^[6].

REFERENCES

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Caution: Product has not been fully validated for medical applications. For research use only.

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