

IFN-alpha 6/IFNA6 Protein, Human (His-Myc)

Cat. No.:	HY-P72244
Synonyms:	IFNA6 Interferon alpha-6; IFN-alpha-6; Interferon alpha-54; Interferon alpha-K; LeIF K
Species:	Human
Source:	E. coli
Accession:	P05013 (S21-E189)
Gene ID:	3443
Molecular Weight:	Approximately 25.1 kDa

PROPERTIES

AA Sequence	<p>S L D C D L P Q T H S L G H R R T M M L L A Q M R R I S L F S C L K D R H D F R</p> <p>F P Q E E F D G N Q F Q K A E A I S V L H E V I Q Q T F N L F S T K D S S V A W</p> <p>D E R L L D K L Y T E L Y Q Q L N D L E A C V M Q E V W V G G T P L M N E D S I</p> <p>L A V R K Y F Q R I T L Y L T E K K Y S P C A W E V V R A E I M R S F S S S R N</p> <p>L Q E R L R R K E</p>
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 µm solution of Tris-based buffer, 50% Glycerol.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH ₂ O.
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 6 (IFNA6; IFN-α6), belongs to the alpha/beta interferon (IFN) family, is produced by the macrophages with antiviral activities^[1]. Interferon (IFN) is originally identified as a substance ‘interfering’ with viral replication in vitro. IFN-α/β and related 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].</p> <p>Interferon stimulates the production of two enzymes: a protein kinase and an oligoadenylate synthetase. Interferon alpha (IFNα) shows significant biological activity in various cancers, particularly haematological malignancies such as hairy cell leukaemia and chronic myelogenous leukaemia^[3].</p> <p>Type I interferons (IFNs) are produced early in response to viral infection and modulate adaptive immunity. IFN-alpha 6</p>
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involves in acute myocarditis and chronic cardiac inflammation inhibition, promotes systemic murine cytomegalovirus (MCMV) infection by reducing MCMV replication^[4].

As for a wildly use of IFN in animal model, the sequence of amino acids in IFNA6 protein of human is very different from mouse (56.61%)

REFERENCES

- [1]. Kumagai Y, et al. Alveolar macrophages are the primary interferon-alpha producer in pulmonary infection with RNA viruses. *Immunity*. 2007 Aug;27(2):240-52.
- [2]. Zhang SY, et al. Inborn errors of interferon (IFN)-mediated immunity in humans: insights into the respective roles of IFN-alpha/beta, IFN-gamma, and IFN-lambda in host defense. *Immunol Rev*. 2008 Dec;226:29-40.
- [3]. Raj NB, et al. Identification of a novel virus-responsive sequence in the promoter of murine interferon-alpha genes. *J Biol Chem*. 1991 Jun 15;266(17):11360-5.
- [4]. Cull VS, et al. Type I interferon gene therapy protects against cytomegalovirus-induced myocarditis. *Immunology*. 2002 Jul;106(3):428-37.
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Caution: Product has not been fully validated for medical applications. For research use only.

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