

IFN-alpha 5/IFNA5 Protein, Human (HEK293, Fc)

Cat. No.:	HY-P75892
Synonyms:	Interferon alpha-5; IFN-alpha-5; Interferon alpha-G; LeIF G
Species:	Human
Source:	HEK293
Accession:	P01569 (L22-E189)
Gene ID:	3442
Molecular Weight:	48-50 kDa

PROPERTIES

Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 µm filtered solution of PBS, pH 7.4. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.
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 5 (IFNA5; IFN-α5), belongs to the alpha/beta interferon (IFN) family, is produced by the macrophages with antiviral activities. 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^[1].</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^[2].</p> <p>IFN-alpha 5 involves in innate immunity, and is one of the genes associated with acute viral bronchiolitis (AVB) caused by respiratory syncytial virus (RSV), determining susceptibility to RSV bronchiolitis^{[3][4]}.</p> <p>The excessively expressed interferon-α (IFN-α) might contribute to the uncontrolled inflammatory responses, causing pathological damage during influenza virus infection. However IFN-alpha 5 is dominantly expressed in respiratory epithelial cells from the patients infected with less pathogenic infectious bronchitis virus (IBV)^[5].</p> <p>As for a widely use of IFN in animal model, the sequence of amino acids in IFNA5 protein of human is very different from mouse (60.32%)</p>
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REFERENCES

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- [3]. Hirankarn N, et al. Genetic association of interferon-alpha subtypes 1, 2 and 5 in systemic lupus erythematosus. *Tissue Antigens.* 2008 Dec;72(6):588-92.
- [4]. Janssen R, et al. Genetic susceptibility to respiratory syncytial virus bronchiolitis is predominantly associated with innate immune genes. *J Infect Dis.* 2007 Sep 15;196(6):826-34.
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