

## IFN-alpha 4/IFNA4 Protein, Mouse (HEK293, His)

Cat. No.:	HY-P76403
Synonyms:	Interferon alpha-4; IFN-alpha-4; INFA4
Species:	Mouse
Source:	HEK293
Accession:	P07351 (C25-E186)
Gene ID:	15967
Molecular Weight:	22-27 kDa.

### PROPERTIES

AA Sequence	<p>           C D L P H T Y N L G    N K R A L T V L E E    M R R L P P L S C L    K D R K D F G F P L            E K V D N Q Q I Q K    A Q A I L V L R D L    T Q Q I L N L F T S    K D L S A T W N A T            L L D S F C N D L H    Q Q L N D L K A C V    M Q E P P L T Q E D    S L L A V R T Y F H            R I T V Y L R K K K    H S L C A W E V I R    A E V W R A L S S S    T N L L A R L S E E            K E         </p>
Biological Activity	Measured in antiviral assays using L929 cells infected with vesicular stomatitisvirus (VSV). The ED <sub>50</sub> for this effect is 10-50 pg/mL.
Appearance	Solution.
Formulation	Supplied as a 0.2 µm filtered solution of PBS, pH 7.4.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	N/A.
Storage & Stability	Stored at -80°C for 1 year. It is stable at -20°C for 3 months after opening. It is recommended to freeze aliquots at -80°C for extended storage. Avoid repeated freeze-thaw cycles.
Shipping	Shipping with dry ice

### DESCRIPTION

Background	<p>IFN-alpha 4 (IFNA4; IFN-α4), 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<sup>[1]</sup>.</p> <p>Interferon alpha (IFNa) shows significant biological activity in various cancers, particularly haematological malignancies such</p>
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as hairy cell leukaemia and chronic myelogenous leukaemia<sup>[2]</sup>.

IFN-alpha 4 is the subtypes dominates in IFN-alpha, whose the response with IFNA5, IFNA7, and IFNA14 accounting for up to 85% of the subtypes expressed by Peripheral blood mononuclear cells (PBMCs)<sup>[3]</sup>.

IFN-alpha 4 is promoted by interferon (IFN) regulatory factors (IRFs), especially IRF-1 and IRF-7<sup>[5][6]</sup>. And it exhibits function by inhibiting virus RNA replication and enhances human natural killer cytotoxicity against virus<sup>[4][7]</sup>.

As for a wildy use of IFN in animal model, the sequence of amino acids in IFNA4 protein of mouse shows 80.98% similarity with, but is very different from mouse (59.57%).

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## REFERENCES

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- [1]. 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.
- [2]. 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.
- [3]. Li Y, et al. Expression Pattern of Individual IFNA Subtypes in Chronic HIV Infection. *J Interferon Cytokine Res.* 2017 Dec;37(12):541-549.
- [4]. Verhagen A, et al. Comparison of augmentation of human natural killer cell cytotoxicity by interferon-alpha subtypes. *Nat Immun Cell Growth Regul.* 1990;9(5):325-33.
- [5]. Au WC, et al. Identification of a member of the interferon regulatory factor family that binds to the interferon-stimulated response element and activates expression of interferon-induced genes. *Proc Natl Acad Sci U S A.* 1995 Dec 5;92(25):11657-61.
- [6]. Lin R, et al. Selective DNA binding and association with the CREB binding protein coactivator contribute to differential activation of alpha/beta interferon genes by interferon regulatory factors 3 and 7. *Mol Cell Biol.* 2000 Sep;20(17):6342-53.
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