

Recombinant Human IFN-alpha A

Accession #	V00549
Alternate Names	Human IFNA2; IFNA2a; IFNalpha 2; IFN-alpha 2; IFN-alphaA; INFA2; interferon alpha A
Source	Human embryonic kidney cell, HEK293-derived human IFN-alpha A protein
Protein sequence	Cys24-Glu188
M.Wt	19.2 kDa
Appearance	Solution protein.
Stability & Storage	Avoid repeated freeze-thaw cycles. It is recommended that the protein be aliquoted for optimal storage. 12 months from date of receipt, -20 to -70 °C as supplied.
Concentration	0.2 mg/mL
Formulation	Dissolved in sterile PBS buffer.
Reconstitution	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. This solution can be diluted into other aqueous buffers.
Biological Activity	Measured in antiviral assays using WISH human amnion cells infected with vesicular stomatitis virus (VSV). The EC50 for interferon in this assay is 0.5-3 pg/mL
Shipping Condition	Shipping with dry ice.
Handling	Centrifuge the vial prior to opening.
Usage	For Research Use Only! Not to be used in humans.

Quality Control

Purity	> 95%, determined by SDS-PAGE.
Endotoxin	<0.010 EU per 1 ug of the protein by the LAL method.

Description

Interon-alpha (IFN-alpha), also known as leukocyte interferon, represents a group of related but distinct proteins that share over 95% amino acid sequence homology. They are members of the type I interferon family which share a common cell surface receptor composed of two subunits, a 100 kDa ligand-binding subunit (IFN-alpha R2) and a 125 kDa ligand binding and signal transduction subunit (IFN-alpha R1) that is involved both in ligand binding and signal transduction ^[1, 2]. IFN-alpha has both anti-viral and immunomodulatory activities on target cells. Type I Interferons (IFNs) are well-known cytokines that exert antiviral activity, antitumor activity, and immunomodulatory effects. Interferon tau (IFNT), a type I IFN similar to alpha IFNs (IFNA), is the pregnancy recognition signal produced by the ruminant conceptus. Among the IFN- α genes, a total of 28 different sequence variants have been described. The three principal subtypes of IFN α -2 are designated α -2a, α -2b, and α -2c.

IFN α -2b is being the predominant allele while IFN α -2a is less predominant and IFN α -2c only a minor allelic variant [2, 3].

Reference

- [1]. Wang, et al. (2004) J Neuroimmunol. 156(1-2): 107-12.
- [2]. Groopman JE, et al. (1984) Ann Intern Med. 100(5): 671-6.
- [3]. Krueger JM, et al. (1987) Int J Immunopharmacol. 9(1): 23-30.

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