

## HA721369



<b>Product Type:</b>	Recombinant Rabbit monoclonal IgG, primary antibodies
<b>Species reactivity:</b>	Human
<b>Applications:</b>	ELISA(Det)
<b>Molecular Wt:</b>	Predicted band size: 22 kDa
<b>Clone number:</b>	PS00-79

**Description:** IFN-alpha is a pharmaceutical drug composed of natural interferon alpha (IFN- $\alpha$ ). Interferon alfa is used in a variety of treatments, including certain forms of leukemia, malignant melanoma, non-Hodgkin's lymphoma, hepatitis B, and hepatitis C. It is typically administered as an injection under the skin. Interferon alfa contains a mixture of several proteins, all with structural, serological, and functional properties typical for natural interferon alpha (IFN- $\alpha$ ). IFN- $\alpha$ 8 enhances the proliferation of human B cells, as well as being able to activate NK cells. The subtypes  $\alpha$ 10 and  $\alpha$ 2, along with  $\alpha$ 8, are the most efficient and powerful NK cell activators. Subtypes  $\alpha$ 21 and  $\alpha$ 2 enhance the expression of IFN-gamma-inducible protein-10 (IP-10) in dendritic cells. Activated dendritic cells initiate immune responses and induce the expression of IP-10, a chemokine which promotes a Th1 inflammatory response. IFN- $\alpha$ 1 causes increased HLA-II expression, and can directly inhibit tumor cell growth in vitro. However, it is a poor activator of NK cells, has relatively little antiviral activity, does not induce B cell proliferation, and does not enhance HLA-I or tumor antigen expression. Despite its apparent inactivity, it is still used clinically in the treatment of metastatic renal cell carcinoma, with a reported lower toxicity than the recombinant IFN- $\alpha$ 2. Overall, IFN- $\alpha$  has a general inflammatory action which skews the immune response towards a Th1 profile.

<b>Conjugate:</b>	Biotin-conjugated
<b>Immunogen:</b>	Recombinant full length protein.
<b>Positive control:</b>	Recombinant human IFN-alpha protein (HA210732).
<b>Subcellular location:</b>	Secreted.
<b>Database links:</b>	SwissProt: P01562 Human
<b>Recommended Dilutions:</b>	
<b>ELISA(Det)</b>	Use at an assay dependent concentration. Can be paired for Sandwich ELISA with Rabbit monoclonal [PS00-80] to IFN-alpha (Capture) (HA721290).
<b>Storage Buffer:</b>	PBS (pH7.4), 0.1% BSA, 40% Glycerol. Preservative: 0.05% ProClin300.
<b>Storage Instruction:</b>	Shipped at 4°C. Store at +4°C short term (1-2 weeks). It is recommended to aliquot into single-use upon delivery. Store at -20°C long term.
<b>Purity:</b>	Protein A affinity purified.

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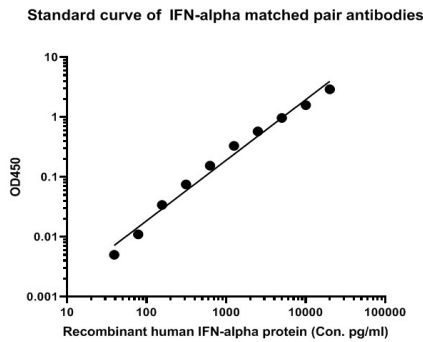
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## Images

**Fig1:** Standard curve of IFN-alpha matched pair antibodies:

Sandwich ELISA analysis of IFN-alpha matched pair antibodies. Elisa assay was performed by coating wells of a 96-well plate with 50  $\mu$ l per well of capture antibody HA721290 [PS00-80] diluted in carbonate/bicarbonate buffer, at a concentration of 4  $\mu$ g/mL overnight at 4°C. Wells of the plate were washed, blocked with 150  $\mu$ l 1% BSA/PBST blocking buffer, and incubated with serial diluted recombinant IFN-alpha protein starting from 20  $\mu$ g/ml to 19 pg/ml for 1 hour at 37°C. The plate was washed and incubated with 50  $\mu$ l per well of detect antibody HA721369 [PS00-79] (Biotin, 1:2,000) for 1 hour at 37°C. Then the plate was washed and incubated with 50  $\mu$ l per well of Streptavidin-HRP for 0.5 hour at 37°C. Detection was performed using an Ultra TMB Substrate for 10 minutes at room temperature in the dark. The reaction was stopped with sulfuric acid and absorbances were read on a spectrophotometer at 450 nm.

**Note:** All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

## Background References

1. Woo MH, Burnakis TG (March 1997). "Interferon alfa in the treatment of chronic viral hepatitis B and C". *The Annals of Pharmacotherapy*. 31 (3): 330–7.
2. "Interferon alfa - Drug Information - Chemocare". chemocare.com. Retrieved 2021-10-17.

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