

Human Interferon alpha 1 ELISA Kit, Fluorescent ab229432

Recombinant CatchPoint SimpleStep ELISA

[8 Images](#)

Overview

Product name Human Interferon alpha 1 ELISA Kit, Fluorescent

Detection method Fluorescent

Precision

Intra-assay

Sample	n	Mean	SD	CV%
HEK293T	3			2%

Inter-assay

Sample	n	Mean	SD	CV%
HEK293T	5			3%

Sample type

Cell culture supernatant, Serum, Cell culture extracts, Tissue Extracts, Hep Plasma, EDTA Plasma, Cit plasma

Assay type

Sandwich (quantitative)

Sensitivity

1 pg/ml

Range

1.8 pg/ml - 1200 pg/ml

Recovery

Sample specific recovery

Sample type	Average %	Range
Cell culture supernatant	93	92% - 94%
Serum	89	87% - 92%
Cell culture extracts	105	102% - 108%
Hep Plasma	91	85% - 98%
EDTA Plasma	87	81% - 90%

Sample type	Average %	Range
Cit plasma	77	76% - 78%

Assay time	1h 30m
Assay duration	One step assay
Species reactivity	Reacts with: Human
Product overview	Interferon alpha-1 <i>in vitro</i> CatchPoint SimpleStep ELISA (Enzyme-Linked Immunosorbent Assay) kit is designed for the quantitative measurement of Interferon alpha-1 protein in human serum, plasma, cell culture supernatants, and cell and tissue extracts.

This CatchPoint SimpleStep ELISA kit has been **optimized for Molecular Devices Microplate Readers**. Click [here](#) for a list of recommended Microplate Readers.

If using a Molecular Devices' plate reader supported by SoftMax® Pro software, a preconfigured protocol for these CatchPoint SimpleStep ELISA Kits is available with all the protocol and analysis settings at www.softmaxpro.org.

The CatchPoint SimpleStep ELISA employs an affinity tag labeled capture antibody and a reporter conjugated detector antibody which immunocapture the sample analyte in solution. This entire complex (capture antibody/analyte/detector antibody) is in turn immobilized via immunoaffinity of an anti-tag antibody coating the well. To perform the assay, samples or standards are added to the wells, followed by the antibody mix. After incubation, the wells are washed to remove unbound material. CatchPoint HRP Development Solution containing the Stoplight Red Substrate is added. During incubation, the substrate is catalyzed by HRP generating a fluorescent product. Signal is generated proportionally to the amount of bound analyte and the intensity is measured in a fluorescence plater reader at 530/570/590 nm Excitation/Cutoff/Emission.

Notes	Interferon alpha-1 belongs to a group of functionally related but distinct proteins of interferon alpha family that share around 80% identity of their amino acid sequences. Members of the interferon-alpha family have both anti-viral and immunomodulatory activities on target cells.
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Abcam has not and does not intend to apply for the REACH Authorisation of customers' uses of products that contain European Authorisation list (Annex XIV) substances.

It is the responsibility of our customers to check the necessity of application of REACH Authorisation, and any other relevant authorisations, for their intended uses.

Platform	Pre-coated microplate (12 x 8 well strips)
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Properties

Storage instructions	Store at +4°C. Please refer to protocols.
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Components	1 x 96 tests
100X Stoplight Red Substrate	1 x 120µl
10X Human Interferon alpha-1 Capture Antibody	1 x 600µl
10X Human Interferon alpha-1 Detector Antibody	1 x 600µl

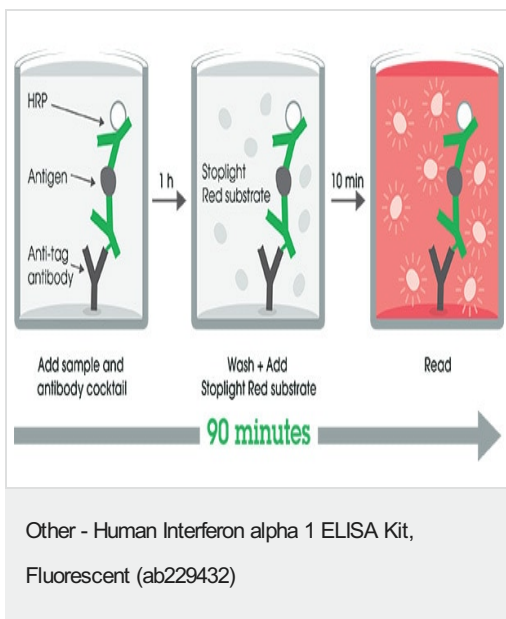
Components	1 x 96 tests
10X Wash Buffer PT (ab206977)	1 x 20ml
500X Hydrogen Peroxide (H2O2, 3%)	1 x 50µl
50X Cell Extraction Enhancer Solution (ab193971)	1 x 1ml
5X Cell Extraction Buffer PTR (ab193970)	1 x 10ml
Antibody Diluent CPI - HAMA Blocker (ab193969)	1 x 6ml
Human Interferon alpha-1 Lyophilized Recombinant Protein	2 vials
Plate Seals	1 unit
Sample Diluent NS (ab193972)	1 x 50ml
SimpleStep Pre-Coated Black 96-Well Microplate	1 unit
Stoplight Red Substrate Buffer	1 x 12ml

Function Produced by macrophages, IFN-alpha have antiviral activities. Interferon stimulates the production of two enzymes: a protein kinase and an oligoadenylate synthetase.

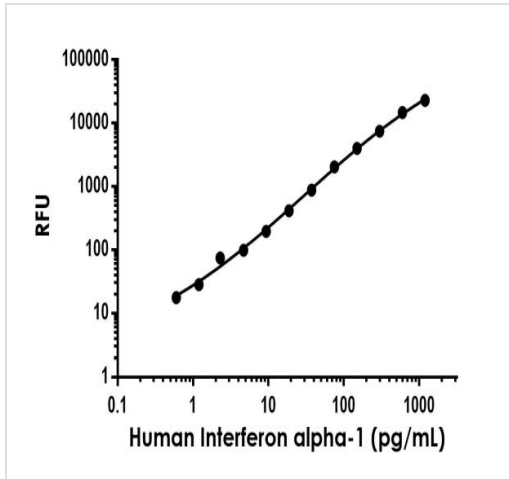
Sequence similarities Belongs to the alpha/beta interferon family.

Cellular localization Secreted.

Images

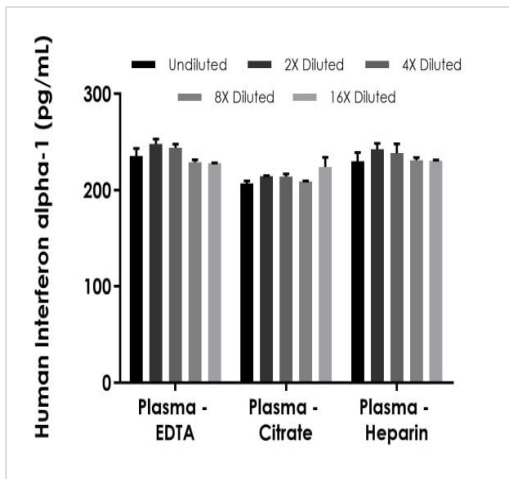


SimpleStep ELISA technology allows the formation of the antibody-antigen complex in one single step, reducing assay time to 90 minutes. Add samples or standards and antibody mix to wells all at once, incubate, wash, and add your final substrate. See protocol for a detailed step-by-step guide.



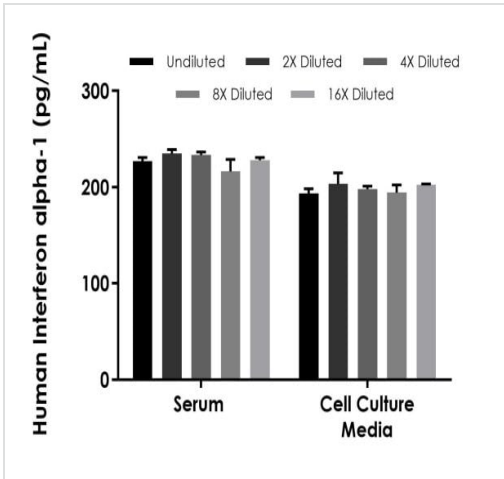
Background-subtracted data values (mean +/- SD) are graphed.

Example of human Interferon alpha-1 standard curve in Sample Diluent NS.



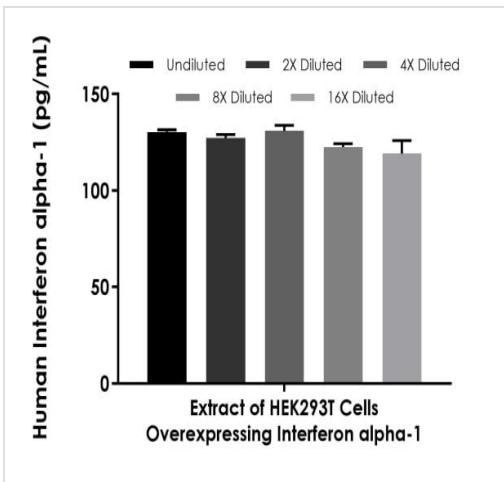
The concentrations of Interferon alpha-1 were measured in duplicates, interpolated from the Interferon alpha-1 standard curves and corrected for sample dilution. Undiluted samples are as follows: plasma (EDTA) 100%, plasma (citrate) 100%, plasma (heparin) 100%. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2).

Interpolated concentrations of spike Interferon alpha-1 in human plasma samples.



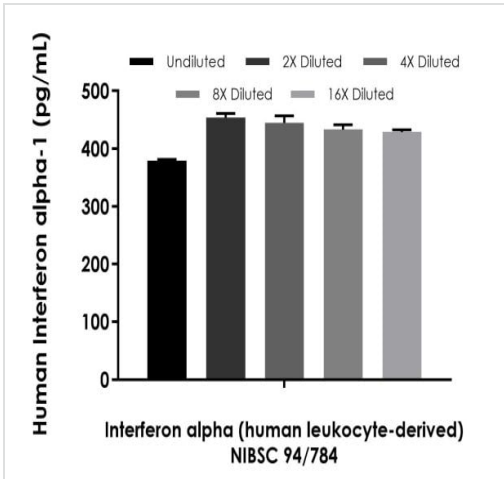
Interpolated concentrations of spike Interferon alpha-1 in human serum and cell culture media samples.

The concentrations of Interferon alpha-1 were measured in duplicates, interpolated from the Interferon alpha-1 standard curves and corrected for sample dilution. Undiluted samples are as follows: serum 100%, cell culture media (RPMI1640 + 10% FBS) 100%. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2).



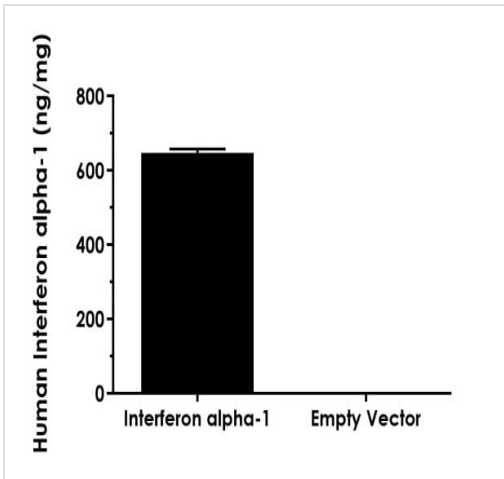
Interpolated concentrations of Interferon alpha-1 in extract of HEK293T cells overexpressing human Interferon alpha-1 based on a 200 ng/mL extract load.

The concentrations of Interferon alpha-1 were measured in duplicate and interpolated from the Interferon alpha-1 standard curve and corrected for sample dilution. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean Interferon alpha-1 concentration was determined to be 126 pg/mL in extract of HEK293T cells overexpressing Interferon alpha-1.



Interpolated concentrations of native Interferon alpha-1 in WHO International Standard Interferon alpha (Human leukocyte-derived) NIBSC 94/784 based on a 75 IU/mL load.

The concentrations of Interferon alpha-1 were measured in duplicate and interpolated from the Interferon alpha-1 standard curve and corrected for sample dilution. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean Interferon alpha-1 concentration was determined to be 427.9 pg/mL in 75 IU/mL WHO International Standard Interferon alpha (Human leukocyte-derived) NIBSC 94/784.



Interpolated concentrations of Interferon alpha-1 in extracts of HEK293T cells overexpressing human Interferon alpha-1 and HEK293T cells transfected with the associated empty vector.

The concentrations of Interferon alpha-1 were measured in three different dilutions in duplicate and interpolated from the Interferon alpha-1 standard curve and corrected for sample dilution. The interpolated dilution factor corrected values are plotted in ng Interferon alpha-1 per mg of extract (mean +/- SD, n=3). Interferon alpha-1 concentration was determined to be 647.6 ng/mg in extract of HEK293T cells overexpressing Interferon alpha-1. Values for the empty vector were below the minimum detectable dose.

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recombinant antibodies



Research with confidence
Consistent and reproducible results



Long-term and scalable supply
Recombinant technology



Success from the first experiment
Confirmed specificity



Ethical standards compliant
Animal-free production

Sandwich ELISA - Human Interferon alpha 1 ELISA
Kit, Fluorescent (ab229432)

To learn more about the advantages of recombinant antibodies see [here](#).

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