

Human HNF-4-alpha ELISA Kit ab210581

Recombinant SimpleStep ELISA®

1 References 4 Images

Overview

Product name Human HNF-4-alpha ELISA Kit

Detection method Colorimetric

Precision Intra-assay

Sample	n	Mean	SD	CV%
Cell extract	5			4.9%

Inter-assay

Sample	n	Mean	SD	CV%
Cell extract	3			8.5%

Sample type Cell culture extracts

Assay type Sandwich (quantitative)

Sensitivity 3.3 pg/ml

Range 31 pg/ml - 2000 pg/ml

Recovery Sample specific recovery

Sample type	Average %	Range
Cell culture extracts	103	101% - 107%

Assay time 1h 30m

Assay duration One step assay

Species reactivity Reacts with: Human

Product overview Human HNF-4-alpha ELISA Kit (ab210581) is a single-wash 90 min sandwich ELISA designed for the quantitative measurement of HNF-4-alpha protein in cell culture extracts. It uses our proprietary SimpleStep ELISA® technology. Quantitate Human HNF-4-alpha with 3.3 pg/ml sensitivity.

SimpleStep ELISA® technology employs capture antibodies conjugated to an affinity tag that is

recognized by the monoclonal antibody used to coat our SimpleStep ELISA® plates. This approach to sandwich ELISA allows the formation of the antibody-analyte sandwich complex in a single step, significantly reducing assay time. See the SimpleStep ELISA® protocol summary in the image section for further details. Our SimpleStep ELISA® technology provides several benefits:

- Single-wash protocol reduces assay time to 90 minutes or less
- High sensitivity, specificity and reproducibility from superior antibodies
- Fully validated in biological samples
- 96-wells plate breakable into 12 x 8 wells strips

A 384-well SimpleStep ELISA® microplate ([ab203359](#)) is available to use as an alternative to the 96-well microplate provided with SimpleStep ELISA® kits.

## Notes

Hepatocyte nuclear factor 4 alpha (HNF4-alpha) is a transcription factor involved in the transcription of genes essential for development of the liver, kidney and intestine.

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

Microplate (12 x 8 well strips)

## Properties

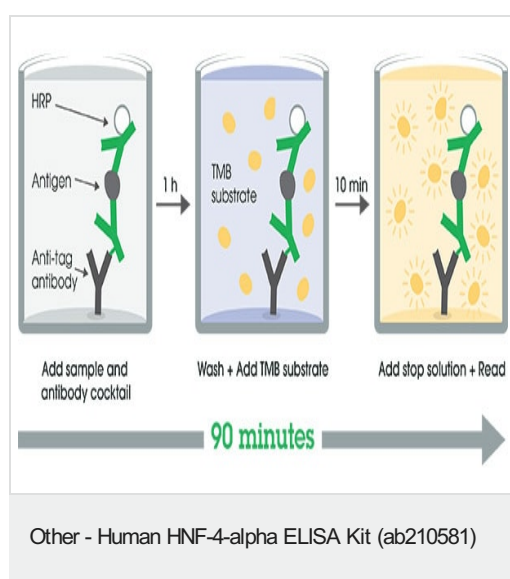
**Storage instructions** Store at +4°C. Please refer to protocols.

Components	1 x 96 tests
10X Human HNF4a Capture Antibody	1 x 600µl
10X Human HNF4a Detector Antibody	1 x 600µl
10X Wash Buffer PT (ab206977)	1 x 20ml
50X Cell Extraction Enhancer Solution (ab193971)	1 x 1ml
5X Cell Extraction Buffer PTR (ab193970)	1 x 10ml
Antibody Diluent 5BI	1 x 6ml
Human HNF4a Lyophilized Recombinant Protein	2 vials
Plate Seals	1 unit
Sample Diluent NS (ab193972)	1 x 12ml
SimpleStep Pre-Coated 96-Well Microplate (ab206978)	1 unit
Stop Solution	1 x 12ml

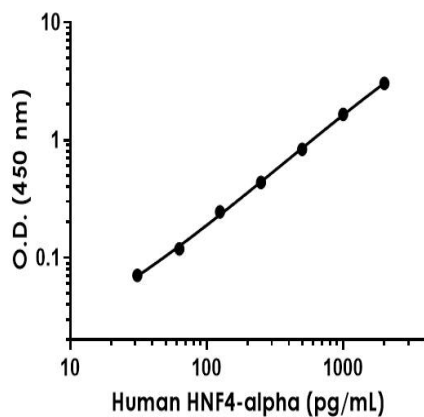
Components	1 x 96 tests
TMB Development Solution	1 x 12ml

<b>Function</b>	Transcriptionally controlled transcription factor. Binds to DNA sites required for the transcription of alpha 1-antitrypsin, apolipoprotein CIII, transthyretin genes and HNF 1-alpha. May be essential for development of the liver, kidney and intestine.
<b>Involvement in disease</b>	Defects in HNF4A are the cause of maturity-onset diabetes of the young type 1 (MODY1) [MIM:125850]; also symbolized MODY-1. MODY is a form of diabetes that is characterized by an autosomal dominant mode of inheritance, onset in childhood or early adulthood (usually before 25 years of age), a primary defect in insulin secretion and frequent insulin-independence at the beginning of the disease.
<b>Sequence similarities</b>	Belongs to the nuclear hormone receptor family. NR2 subfamily. Contains 1 nuclear receptor DNA-binding domain.
<b>Post-translational modifications</b>	Phosphorylated on tyrosine residue(s); phosphorylation is important for its DNA-binding activity. Phosphorylation may directly or indirectly play a regulatory role in the subnuclear distribution.
<b>Cellular localization</b>	Nucleus.

## Images

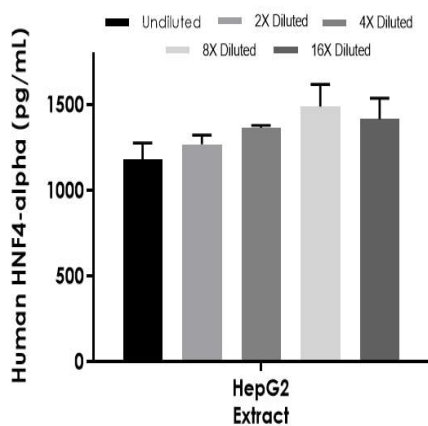


SimpleStep ELISA technology allows the formation of the antibody-antigen complex in one single step, reducing assay time to 90 minutes. Add samples or standards and antibody mix to wells all at once, incubate, wash, and add your final substrate. See protocol for a detailed step-by-step guide.



Example of human HNF4-alpha standard curve in Sample Diluent PTR.

Background-subtracted data values (mean  $\pm$  SD) are graphed.



Interpolated concentrations of native HNF4-alpha in human HepG2 extract and based on a 40  $\mu$ g/mL extract load.

The concentrations of HNF4a were measured in duplicate and interpolated from the HNF4-alpha standard curve and corrected for sample dilution. The interpolated dilution factor corrected values are plotted (mean  $\pm$  SD, n=2). The mean HNF4-alpha concentration was determined to be 1346  $\mu$ g/mL in HepG2 extract.

Powered by  
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

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

Sandwich ELISA - Human HNF-4-alpha ELISA Kit  
(ab210581)

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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