

Human FGFR-4 ELISA Kit α b256399

Recombinant SimpleStep ELISA[®]

6 Images

Overview

Product name Human FGFR-4 ELISA Kit
Detection method Colorimetric
Precision

Intra-assay

Sample	n	Mean	SD	CV%
Serum	8			3.7%

Inter-assay

Sample	n	Mean	SD	CV%
Serum	3			2.8%

Sample type Cell culture supernatant, Serum, Cell Lysate, Cell culture media, EDTA Plasma
Assay type Sandwich (quantitative)
Sensitivity 15 pg/ml
Range 62.5 pg/ml - 4000 pg/ml
Recovery

Sample specific recovery

Sample type	Average %	Range
Cell culture supernatant	109	104% - 115%
Serum	116	115% - 119%
Cell Lysate	151	143% - 156%
Cell culture media	86	83% - 93%
EDTA Plasma	114	109% - 121%

Assay time 1h 30m
Assay duration One step assay

Species reactivity

Reacts with: Human, Macaque monkey

Does not react with: Cow

Product overview

Human FGFR-4 ELISA Kit (ab256399) is a single-wash 90 min sandwich ELISA designed for the quantitative measurement of FGFR-4 protein in cell culture supernatant, cell lysate, edta plasma, serum, and cell culture media. It uses our proprietary SimpleStep ELISA® technology. Quantitate Human FGFR-4 with 15 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

FGFR-4 (Fibroblast growth factor receptor 4) is a tyrosine-protein kinase that acts as cell-surface receptor for fibroblast growth factors and plays a role in the regulation of cell proliferation, differentiation and migration, and in regulation of lipid metabolism, bile acid biosynthesis, glucose uptake, vitamin D metabolism and phosphate homeostasis. Binding of FGF family members together with heparan sulfate proteoglycan or heparin promotes receptor dimerization and autophosphorylation on tyrosine residues. FGFR-4 mutations that lead to constitutive kinase activation or impair normal FGFR-4 inactivation lead to aberrant signaling. FGFR-4 is highly homologous among the species, rhesus macaque FGFR-4 is 97% identical on amino acid level.

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)

Properties

Storage instructions

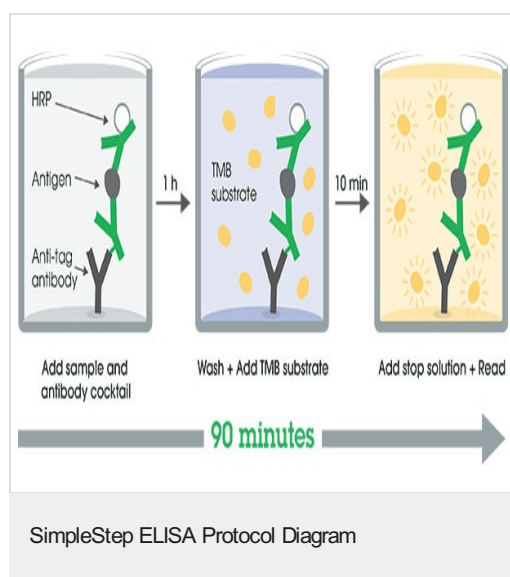
Store at +4°C. Please refer to protocols.

Components	1 x 96 tests
10X Human FGFR-4 Capture Antibody	1 x 600µl
10X Human FGFR-4 Detector Antibody	2 vials
10X Wash Buffer PT (ab206977)	1 x 20ml

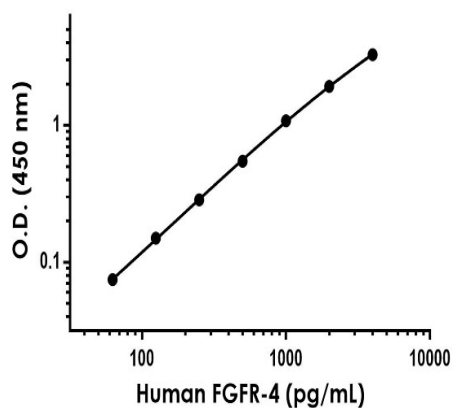
Components	1 x 96 tests
5X Cell Extraction Buffer PTR (ab193970)	1 x 10ml
Antibody Diluent 4BI	1 x 6ml
Human FGFR-4 Lyophilized Recombinant Protein	2 vials
Plate Seals	1 unit
Sample Diluent NS (ab193972)	1 x 12ml
SimpleStep Pre-Coated 96-Well Microplate (ab206978)	1 unit
Stop Solution	1 x 12ml
TMB Development Solution	1 x 12ml

Function	Receptor for acidic fibroblast growth factor. Does not bind to basic fibroblast growth factor. Binds FGF19.
Tissue specificity	Expressed in gastrointestinal epithelial cells, pancreas, and gastric and pancreatic cancer cell lines.
Sequence similarities	Belongs to the protein kinase superfamily. Tyr protein kinase family. Fibroblast growth factor receptor subfamily. Contains 3 Ig-like C2-type (immunoglobulin-like) domains. Contains 1 protein kinase domain.
Post-translational modifications	Glycosylated. Phosphorylated on tyrosine residue (By similarity). Phosphorylation requires the presence of a functional (phosphorylated) FGFR1 and not necessarily by means of FGFR heterodimerization.
Cellular localization	Membrane. Isoform 2 may be secreted.

Images

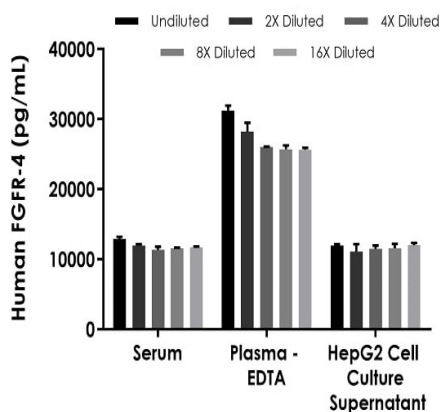


SimpleStep ELISA technology allows the formation of the antibody-antigen complex in one single step, reducing assay time to 90 minutes. Add samples or standards and antibody mix to wells all at once, incubate, wash, and add your final substrate. See protocol for a detailed step-by-step guide.



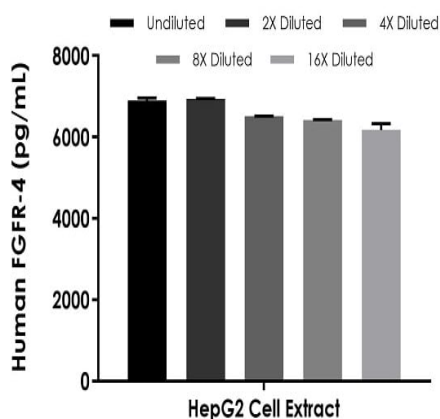
Example of human FGFR-4 standard curve in Sample Diluent NS.

The FGFR-4 standard curve was prepared as described in Section 10. Raw data values are shown in the table. Background-subtracted data values (mean \pm SD) are graphed.



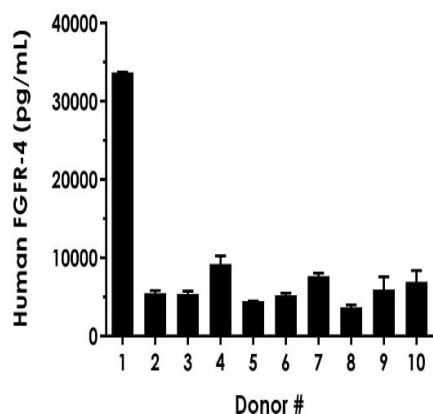
Interpolated concentrations of native FGFR-4 in human serum, plasma and cell culture supernatant samples.

The concentrations of FGFR-4 were measured in duplicates, interpolated from the FGFR-4 standard curves and corrected for sample dilution. Undiluted samples are as follows: serum 25%, plasma (EDTA) 12.5% and HepG2 cell culture supernatant 25%. The interpolated dilution factor corrected values are plotted (mean \pm SD, $n=2$). The mean FGFR-4 concentration was determined to be 11,887 pg/mL in neat serum, 27,375 pg/mL in neat plasma (EDTA) and 11,607 pg/mL in neat HepG2 cell culture supernatant.



Interpolated concentrations of native FGFR-4 in 250 μ g/mL HepG2 cell extract.

The concentrations of FGFR-4 were measured in duplicate and interpolated from the FGFR-4 standard curve and corrected for sample dilution. The interpolated dilution factor corrected values are plotted (mean \pm SD, $n=2$). The mean FGFR-4 concentration was determined to be 6,588 pg/mL in 250 μ g/mL HepG2 cell extract.



Interpolated dilution factor corrected values are plotted (mean \pm SD, n=2). The mean FGFR-4 concentration was determined to be 8,757 pg/mL with a range of 3,634 – 33,733 pg/mL.

Serum from ten individual healthy human male donors was measured in duplicate.

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

Sandwich ELISA - Human FGFR-4 ELISA Kit
(ab256399)

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

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