# abcam

### Product datasheet

## Human FGF1 ELISA Kit ab219636

重组 SimpleStep ELISA

3 References 10 图像

概述

产品名称

人FGF1 ELISA试剂盒

检测方法

Colorimetric

精确度

批次内

| 样品      | n | Mean | SD | CV%  |
|---------|---|------|----|------|
| extract | 8 |      |    | 3.4% |

批次间

| 样品      | n | Mean | SD | CV%  |
|---------|---|------|----|------|
| extract | 3 |      |    | 3.8% |

样品类型

Cell culture supernatant, Saliva, Urine, Serum, Tissue Extracts, Cell culture media

检测类型

Sandwich (quantitative)

灵敏度

1.97 pg/ml

范围

18.75 pg/ml - 1200 pg/ml

回收率

特定样本回收率

| 样品类型               | 平均% | 范围          |
|--------------------|-----|-------------|
| Saliva             | 88  | 87% - 91%   |
| Urine              | 81  | 78% - 83%   |
| Serum              | 91  | 89% - 94%   |
| Tissue Extracts    | 103 | 101% - 104% |
| Cell culture media | 114 | 112% - 115% |

检测时间

1h 30m

实验步骤

One step assay

#### 种属反应性

### 产品概述

与反应: Human

Human FGF1 ELISA Kit (ab219636) is a single-wash 90 min sandwich ELISA designed for the quantitative measurement of FGF1 protein in cell culture supernatant, saliva, serum, tissue extracts, urine, and cell culture media. It uses our proprietary SimpleStep ELISA® technology. Quantitate Human FGF1 with 1.97 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 (<u>ab203359</u>) is available to use as an alternative to the 96-well microplate provided with SimpleStep ELISA® kits.

Fibroblast growth factor 1 (FGF1) is a heparin-binding fibroblast growth factor that plays an important role in the regulation of cell survival, cell division, angiogenesis, cell differentiation and cell migration. Specifically, FGF1 binds to FGFR1 in the presence of heparin leading to FGFR1 dimerization and activation. Endogenous FGF-1 is found in the nucleus of most cell types. Nuclear localization is required for FGF-1 mitogenic activity. FGF-1 promotes tumor development by promoting cancer cell proliferation and survival. Mouse and rat FGF1 are 95.5% identical to human FGF1.

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.

Microplate (12 x 8 well strips)

### 平台

说明

### 性能

#### 存放说明

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

| 组 <b>件</b>                                       | 1 x 96 tests |
|--|--------------|
| 10X Human FGF1 Capture Antibody                  | 1 x 600µl    |
| 10X Human FGF1 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     |

| 组 <b>件</b>  | 1 x 96 tests |
|---|--------------|
| Antibody Diluent 4BI                                | 1 x 6ml      |
| Human FGF1 Lyophilized Recombinant Protein          | 2 vials      |
| Plate Seals   | 1 unit       |
| Sample Diluent 50BS                                 | 1 x 20ml     |
| Sample Diluent NS (ab193972)                        | 1 x 50ml     |
| SimpleStep Pre-Coated 96-Well Microplate (ab206978) | 1 unit       |
| Stop Solution                                       | 1 x 12ml     |
| TMB Development Solution                            | 1 x 12ml     |

功能

The heparin-binding fibroblast growth factors play important roles in the regulation of cell survival, cell division, angiogenesis, cell differentiation and cell migration. They are potent mitogens in vitro

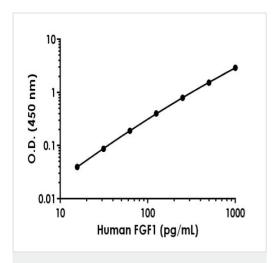
序列相似性

Belongs to the heparin-binding growth factors family.

细胞定位

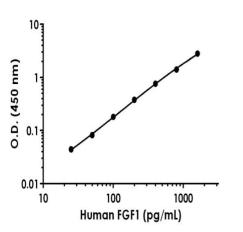
Secreted. Cytoplasm. Cytoplasm > cell cortex. Lacks a cleavable signal sequence. Within the cytoplasm, it is transported to the cell membrane and then secreted by a non-classical pathway that requires Cu(2+) ions and S100A13. Secreted in a complex with SYT1.

### 图片



Example of human FGF1 standard curve in Sample Diluent NS.

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

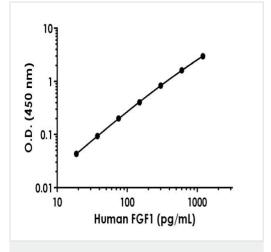


Example of human FGF1 standard curve in Sample Diluent 50BS.

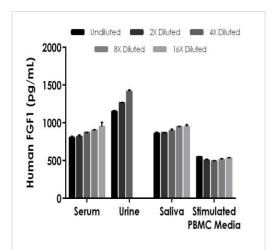


Background-subtracted data values (mean +/- SD) are graphed.

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

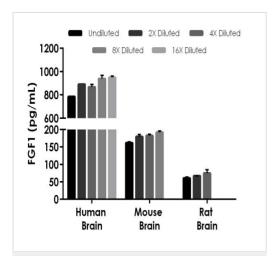


Example of human FGF1 standard curve in Sample Diluent 1X Cell Extraction buffer PTR.



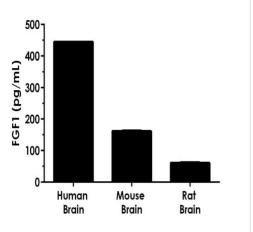
Interpolated concentrations of spiked FGF1 in human serum, urine, saliva, and stimulated PBMC media samples.

The concentrations of FGF1 were measured in duplicates, interpolated from the FGF1 standard curves and corrected for sample dilution. Undiluted samples are as follows: serum 50%, urine 50%, saliva 50%, and stimulated PBMC media 100%. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean FGF1 concentration was determined to be 868 pg/mL in neat serum, 1,275 pg/mL in neat urine, 903 pg/mL in neat saliva, and 518 pg/mL in neat stimulated PBMC culture media.



Interpolated concentrations of native FGF1 in human, mouse, and rat brain samples based on 40  $\mu$ g/mL, 20  $\mu$ g/mL, and 20  $\mu$ g/mL extract loads, respectively.

The concentrations of FGF1 were measured in duplicate and interpolated from the FGF1 standard curve and corrected for sample dilution. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean FGF1 concentration was determined to be 886 pg/mL in human brain extract, 179 pg/mL in mouse brain extract, and 68 pg/mL in rat brain extract.

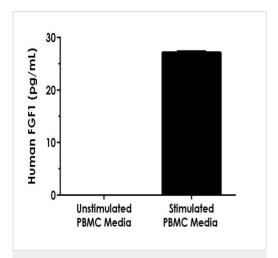


Brain Brain Brain

Interpolated concentrations of native FGF1 in
human, mouse, and rat brain samples based on 20

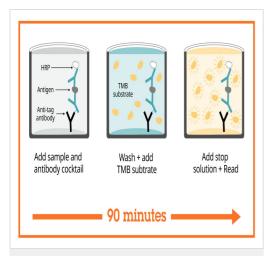
µg/mL extract loads for each sample type.

The concentrations of FGF1 were measured in duplicate and interpolated from the FGF1 standard curve. The interpolated values are plotted (mean +/- SD, n=2). The mean FGF1 concentration was determined to be 445 pg/mL in human brain extract, 161 pg/mL in mouse brain extract, and 61 pg/mL in rat brain extract.



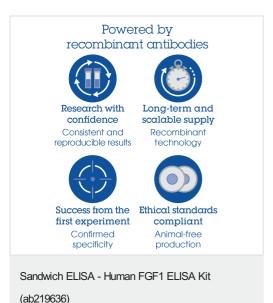
Interpolated concentrations of native FGF1 in human PBMC unstimulated and stimulated media samples.

The concentrations of FGF1 were measured in duplicates and interpolated from the FGF1 standard curves. Undiluted samples are as follows: unstimulated PBMC media 100% and stimulated PBMC media 100%. The interpolated values are plotted (mean +/- SD, n=2). The level of FGF1 in neat unstimulated PBMC media was below the 7<sup>th</sup> point of the standard curve and could not be interpolated. The mean FGF1 concentration was determined to be 27 pg/mL in neat stimulated PBMC media. PBMC media samples were cultured in RPMI media with 10% fetal bovine serum (unstimulated) for 24 hours and then stimulated for 48 hours with 1.5% PHAM.

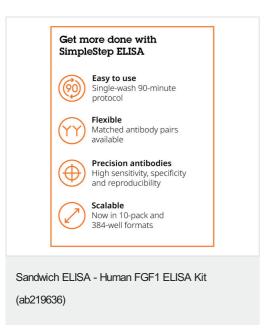


Sandwich ELISA - Human FGF1 ELISA Kit (ab219636)

SimpleStep ELISA technology allows the formation of the antibodyantigen 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.



To learn more about the advantages of recombinant antibodies see **here**.



To learn more about the advantages of SimpleStep  $\mathsf{ELISA}^{@}$  kits see  $\underline{\mathsf{here}}$ .

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

### Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- · Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- · We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit <a href="https://www.abcam.cn/abpromise">https://www.abcam.cn/abpromise</a> or contact our technical team.

### Terms and conditions

• Guarantee only valid for products bought direct from Abcam or one of our authorized distributors