

### Rat FGF-21 ELISA Kit ab223589

Recombinant SimpleStep ELISA

[2 References](#) [5 Images](#)

#### Overview

**Product name** Rat FGF-21 ELISA Kit

**Detection method** Colorimetric

**Precision**

Intra-assay

Sample	n	Mean	SD	CV%
Serum	5			4%

Inter-assay

Sample	n	Mean	SD	CV%
Serum	3			5.4%

**Sample type**

Cell culture supernatant, Serum, EDTA Plasma, Cit plasma

**Assay type**

Sandwich (quantitative)

**Sensitivity**

6.8 pg/ml

**Range**

31.25 pg/ml - 2000 pg/ml

**Recovery**

Sample specific recovery

Sample type	Average %	Range
Serum	94	88% - 97%
EDTA Plasma	83	81% - 85%
Cit plasma	89	84% - 92%

**Assay time**

1h 30m

**Assay duration**

One step assay

**Species reactivity**

**Reacts with:** Rat

**Does not react with:** Cow

**Product overview**

Rat FGF-21 ELISA Kit (ab223589) is a single-wash 90 min sandwich ELISA designed for the

quantitative measurement of FGF-21 protein in cell culture supernatant, cit plasma, edta plasma, and serum. It uses our proprietary SimpleStep ELISA® technology. Quantitate Rat FGF-21 with 6.8 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** FGF-21 is a secreted protein, a member of a large FGF gene family. FGF-21 stimulates glucose uptake in differentiated adipocytes via the induction of glucose transporter SLC2A1/GLUT1 expression but not via SLC2A4/GLUT4 expression. FGF-21 activity probably requires the presence of KLB.

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

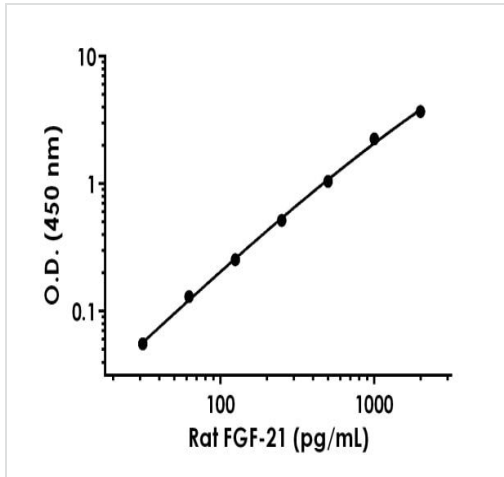
**Properties**

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

Components	1 x 96 tests
10X Wash Buffer PT (ab206977)	1 x 20ml
Antibody Diluent CPR	1 x 6ml
Plate Seals	1 unit
10X Rat FGF-21 Capture Antibody	1 x 600µl
10X Rat FGF-21 Detector Antibody	1 x 600µl
Rat FGF-21 Lyophilized Recombinant Protein	2 vials
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

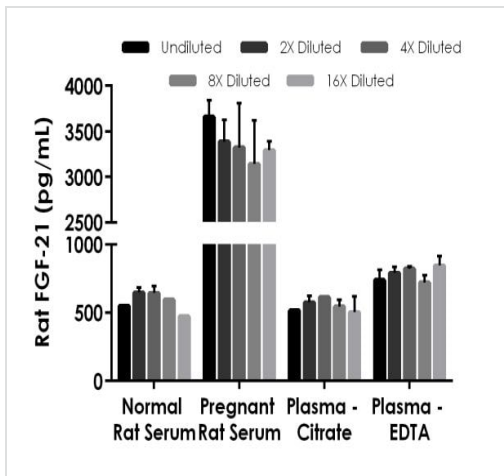
<b>Function</b>	Stimulates glucose uptake in differentiated adipocytes via the induction of glucose transporter SLC2A1/GLUT1 expression (but not SLC2A4/GLUT4 expression). Activity requires the presence of KLB.
<b>Sequence similarities</b>	Belongs to the heparin-binding growth factors family.
<b>Cellular localization</b>	Secreted.

## Images



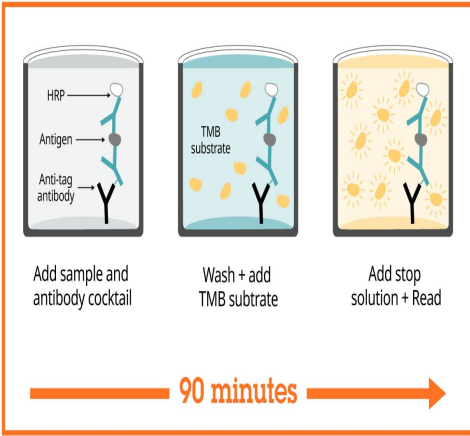
Background-subtracted data values (mean +/- SD) are graphed.

Example of rat FGF-21 standard curve in Sample Diluent NS.



The concentrations of FGF-21 were measured in duplicates, interpolated from the FGF-21 standard curves and corrected for sample dilution. Undiluted samples are as follows: normal serum neat, pregnant serum 12.5%, normal plasma (citrate) neat, normal plasma (EDTA) neat. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean FGF-21 concentration was determined to be 580.1 pg/mL in neat normal serum, 3361 pg/mL in neat pregnant serum, 548.7 pg/mL in neat normal plasma (citrate), and 782.4 pg/mL in neat normal plasma (EDTA).

Interpolated concentrations of native FGF-21 in rat serum and plasma samples.



Sandwich ELISA - Rat FGF-21 ELISA Kit  
(ab223589)

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.

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 - Rat FGF-21 ELISA Kit  
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To learn more about the advantages of recombinant antibodies see [here](#).

**Get more done with  
SimpleStep ELISA**



**Easy to use**  
Single-wash 90-minute  
protocol



**Flexible**  
Matched antibody pairs  
available



**Precision antibodies**  
High sensitivity, specificity  
and reproducibility



**Scalable**  
Now in 10-pack and  
384-well formats

Sandwich ELISA - Rat FGF-21 ELISA Kit  
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To learn more about the advantages of SimpleStep ELISA<sup>®</sup> kits  
see [here](#).

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

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