

Datasheet for ABIN1889350

FGF1 ELISA Kit



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1 Image

Overview

Quantity:	96 tests
Target:	FGF1
Binding Specificity:	AA 16-155
Reactivity:	Rat
Method Type:	Sandwich ELISA
Detection Range:	31.2-2000 pg/mL
Minimum Detection Limit:	31.2 pg/mL
Application:	ELISA

Product Details

Purpose:	Sandwich High Sensitivity ELISA kit for Quantitative Detection of Rat FGF1
Brand:	PicoKine™
Sample Type:	Cell Culture Supernatant, Serum, Plasma (heparin), Plasma (EDTA)
Analytical Method:	Quantitative
Detection Method:	Colorimetric
Immunogen:	Expression system for standard: E.coli Immunogen sequence: F16-D155
Specificity:	Expression system for standard: E.coli Immunogen sequence: F16-D155
Cross-Reactivity (Details):	There is no detectable cross-reactivity with other relevant proteins.

Product Details

Sensitivity: <10pg/mL

Material not included: Microplate reader in standard size. Automated plate washer. Adjustable pipettes and pipette tips. Multichannel pipettes are recommended in the condition of large amount of samples in the detection. Clean tubes and Eppendorf tubes. Washing buffer (neutral PBS or TBS). Preparation of 0.01M TBS: Add 1.2g Tris, 8.5g NaCl

Target Details

Target: FGF1

Alternative Name: FGF1 ([FGF1 Products](#))

Background: Protein Function: Plays an important role in the regulation of cell survival, cell division, angiogenesis, cell differentiation and cell migration. Functions as potent mitogen in vitro.
Background: Heparin-binding growth factor 1 is a protein that in humans is encoded by the FGF1 gene. The protein encoded by this gene is a member of the fibroblast growth factor(FGF) family. This protein functions as a modifier of endothelial cell migration and proliferation, as well as an angiogenic factor. It acts as a mitogen for a variety of mesoderm- and neuroectoderm-derived cells in vitro, thus is thought to be involved in organogenesis. The FGF1 gene was mapped to chromosome 5q31.3-q33.2 by in situ hybridization.
Synonyms: Fibroblast growth factor 1,FGF-1,Acidic fibroblast growth factor,aFGF,Heparin-binding growth factor 1,HBGF-1,Fgf1,Fgf-1, Fgfa,
Full Gene Name: Fibroblast growth factor 1
Cellular Localisation: Secreted . Cytoplasm . Cytoplasm, cell cortex . Cytoplasm, cytosol . Nucleus . 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 (By similarity). Binding of exogenous FGF1 to FGFR facilitates endocytosis followed by translocation of FGF1 across endosomal membrane into the cytosol. Nuclear import from the cytosol requires the classical nuclear import machinery, involving proteins KPNA1 and KPNB1, as well as LRRC59 (By similarity)..

Gene ID: 25317

UniProt: [P61149](#)

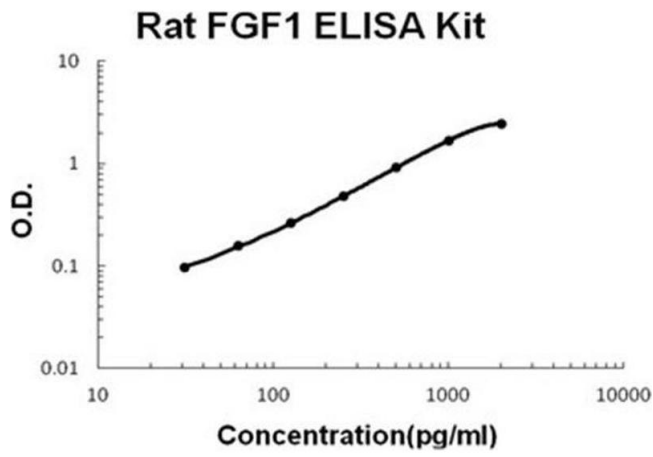
Pathways: [RTK Signaling](#), [Fc-epsilon Receptor Signaling Pathway](#), [EGFR Signaling Pathway](#), [Neurotrophin Signaling Pathway](#)

Application Details

Application Notes:	Before using Kit, spin tubes and bring down all components to bottom of tube. Duplicate well assay was recommended for both standard and sample testing.
Plate:	Pre-coated
Protocol:	rat FGF1 ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay technology. A monoclonal antibody from mouse specific for FGF1 has been precoated onto 96-well plates. Standards(E.coli, F16-D155) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for FGF1 is added subsequently and then followed by washing with PBS or TBS buffer. Avidin-Biotin-Peroxidase Complex was added and unbound conjugates were washed away with PBS or TBS buffer. HRP substrate TMB was used to visualize HRP enzymatic reaction. TMB was catalyzed by HRP to produce a blue color product that changed into yellow after adding acidic stop solution. The density of yellow is proportional to the rat FGF1 amount of sample captured in plate.
Assay Procedure:	Aliquot 0.1 mL per well of the 2000pg/mL, 1000pg/mL, 500pg/mL, 250pg/mL, 125pg/mL, 62.5pg/mL, 31.2pg/mL rat FGF1 standard solutions into the precoated 96-well plate. Add 0.1 mL of the sample diluent buffer into the control well (Zero well). Add 0.1 mL of each properly diluted sample of rat cell culture supernates, serum or plasma(heparin, EDTA) to each empty well. See "Sample Dilution Guideline" above for details. We recommend that each rat FGF1 standard solution and each sample is measured in duplicate.
Assay Precision:	<ul style="list-style-type: none">• Sample 1: n=16, Mean(pg/ml): 156, Standard deviation: 7.49, CV(%): 4.8• Sample 2: n=16, Mean(pg/ml): 758, Standard deviation: 56.85, CV(%): 7.5• Sample 3: n=16, Mean(pg/ml): 1229, Standard deviation: 82.34, CV(%): 6.7,• Sample 1: n=24, Mean(pg/ml): 157, Standard deviation: 13.82, CV(%): 8.8• Sample 2: n=24, Mean(pg/ml): 749, Standard deviation: 65.16, CV(%): 8.7• Sample 3: n=24, Mean(pg/ml): 1226, Standard deviation: 91.95, CV(%): 7.5
Restrictions:	For Research Use only

Handling

Handling Advice:	Avoid multiple freeze-thaw cycles.
Storage:	-20 °C, 4 °C
Storage Comment:	Store at 4°C for 6 months, at -20°C for 12 months. Avoid multiple freeze-thaw cycles
Expiry Date:	12 months



ELISA

Image 1. Rat FGF1 PicoKine ELISA Kit standard curve