



# Mouse basic fibroblast growth factor,bFGF ELISA Kit

<b>Product Code</b>	CSB-E08001m
<b>Abbreviation</b>	FGF2
<b>Protein Biological Process 1</b>	Angiogenesis
<b>Target Name</b>	fibroblast growth factor 2 (basic)
<b>Uniprot No.</b>	P15655
<b>Alias</b>	BFGF, FGFB, HBGF-2, basic fibroblast growth factor bFGF fibroblast growth factor 2 heparin-binding growth factor 2 prostatropin
<b>Product Type</b>	ELISA Kit
<b>Immunogen Species</b>	Mus musculus (Mouse)
<b>Protein Biological Process 3</b>	Angiogenesis
<b>Sample Types</b>	serum, plasma, cell culture supernates, tissue homogenates
<b>Detection Range</b>	3.12 pg/mL-200 pg/mL
<b>Sensitivity</b>	0.78 pg/mL
<b>Assay Time</b>	1-5h
<b>Sample Volume</b>	50-100ul
<b>Detection Wavelength</b>	450 nm
<b>Lead Time</b>	3-5 working days after you place the order, and it takes another 3-5 days for delivery via DHL or FedEx.
<b>Research Area</b>	Cardiovascular
<b>Gene Names</b>	Fgf2
<b>Tag Info</b>	quantitative
<b>Protein Description</b>	Sandwich

## Description

CUSABIO's bFGF mouse ELISA kit is an in vitro enzyme-linked immunosorbent assay for the quantitative measurement of mouse bFGF in serum, plasma, cell culture supernates, or tissue homogenates. This assay uses an antibody specific for mouse bFGF coated on a 96-well plate. bFGF present in a sample is bound to the wells by the immobilized antibody after adding the sample into the wells. Biotinylated bFGF antibody is added to the wells, forming an antibody-analyte-antibody complex. HRP-conjugated avidin is pipetted to the wells and binds to the complex. A TMB substrate solution is added to the wells and color develops in proportion to the amount of bFGF bound. The addition of Stop Solution changes the color from blue to yellow, and the intensity of the color is



measured at 450 nm using a microplate reader.

bFGF, also called FGF2, is a powerful angiogenic molecule that stimulates smooth muscle cell growth, wound healing, and tissue repair. In addition, FGF2 may stimulate hematopoiesis and may play an important role in the differentiation and/or function of the nervous system, eyes, and skeleton. Together with heparin or heparin sulfate proteoglycan, FGF2 activates FGFRs, inducing its pleiotropic effects in different tissues and organs, including potent angiogenic effects and important roles in the differentiation and function of the central nervous system (CNS). FGF2 plays a critical role in the development of the CNS. FGF2/FGFR1 signaling has been a hotspot of therapeutic development for neurodegenerative diseases such as multiple sclerosis, Alzheimer's disease, and Parkinson's disease.

### Target Details

This protein is a member of the fibroblast growth factor (FGF) family. FGF family members bind heparin and possess broad mitogenic and angiogenic activities. This protein has been implicated in diverse biological processes, such as limb and nervous system development, wound healing, and tumor growth. The mRNA for this gene contains multiple polyadenylation sites, and is alternatively translated from non-AUG (CUG) and AUG initiation codons, resulting in five different isoforms with distinct properties. The CUG-initiated isoforms are localized in the nucleus and are responsible for the intracrine effect, whereas, the AUG-initiated form is mostly cytosolic and is responsible for the paracrine and autocrine effects of this FGF.

### Product Precision

Intra-assay Precision (Precision within an assay): CV%<8%  
Three samples of known concentration were tested twenty times on one plate to assess.

Inter-assay Precision (Precision between assays): CV%<10%  
Three samples of known concentration were tested in twenty assays to assess.

### Linearity

To assess the linearity of the assay, samples were spiked with high concentrations of mouse bFGF in various matrices and diluted with the Sample Diluent to produce samples with values within the dynamic range of the assay.

?	Sample	Serum(n=4)
1:1	Average %	95
	Range %	89-100
1:2	Average %	94
	Range %	90-99
1:4	Average %	97
	Range %	92-103
1:8	Average %	94
	Range %	87-98

### Recovery

The recovery of mouse bFGF spiked to levels throughout the range of the assay in various matrices was evaluated. Samples were diluted prior to assay as directed in the Sample Preparation section.

Sample Type	Average % Recovery	Range
Serum (n=5)	90	87-95



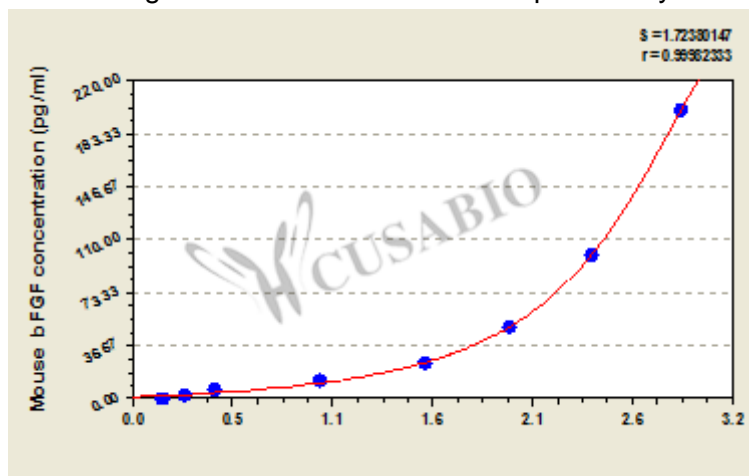
EDTA plasma (n=4)

96

92-101

### Typical

These standard curves are provided for demonstration only. A standard curve should be generated for each set of samples assayed.



pg/ml	OD1	OD2	Average	Corrected
200	2.895	2.863	2.879	2.711
100	2.455	2.364	2.410	2.242
50	1.995	1.976	1.986	1.818
25	1.556	1.532	1.544	1.376
12.5	1.011	0.968	0.990	0.822
6.25	0.452	0.427	0.440	0.272
3.12	0.292	0.284	0.288	0.120
0	0.169	0.167	0.168	?

### Msds

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