

Datasheet for ABIN7539324 FGF2 Protein



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Overview

Quantity:	10 µg
Target:	FGF2
Origin:	Pig
Source:	Escherichia coli (E. coli)
Protein Type:	Recombinant
Biological Activity:	Active

Product Details

Purpose:	FGF-2 (basic)
Sequence:	AAGSITTLPA LPEDGGSGAF PPGHFKDPKR LYCKNGGFFL RIHPDGRVDG VREKSDPHIK LQLQAEERGV VSIKGVCANR YLAMKEDGRL LASKCVTDEC FFFERLESNN YNTYRSRKYS SWYVALKRTG QYKLGPKTGP GQKAILFLPM SAKS
Characteristics:	Length (aa):145
Purity:	> 98 % by SDS-PAGE
Endotoxin Level:	< 0.1 ng per µg of porcine FGF-2

Target Details

Target:	FGF2
Alternative Name:	FGF-2 (FGF2 Products)
Background:	Fgf2, bFGF, Fgf-2, FGF2 (basic) is one of at least 23 mitogenic proteins of the FGF family, which show 35-60 % amino acid conservation. Unlike other FGFs, FGF acidic and basic lack signal

Target Details

peptides and are secreted by an alternate pathway. Storage pools within the cell or on cell surface heparan sulfate proteoglycans (HSPG) are likely. FGF2 has been isolated from a number of sources, including neural tissue, pituitary, adrenal cortex, corpus luteum and placenta. This factor contains four cysteine residues but reduced FGF2 retains full biological activity, indicating that disulfide bonds are not required for this activity. Several reports indicate that a variety of forms of FGF2 are produced as a result of N-terminal extensions. These extensions apparently affect localization of FGF2 in cellular compartments but do not affect biological activity. Studies indicate that binding of FGF to heparin or cell surface heparan sulfate proteoglycans is necessary for binding of FGF to high affinity FGF receptors. FGF acidic and basic appear to bind to the same high affinity receptors and show a similar range of biological activities. FGF2 stimulates the proliferation of all cells of mesodermal origin, and many cells of neuroectodermal, ectodermal and endodermal origin. The cells include fibroblasts, endothelial cells, astrocytes, oligodendrocytes, neuroblasts, keratinocytes, osteoblasts, smooth muscle cells, and melanocytes. FGF2 is chemotactic and mitogenic for endothelial cells in vitro. FGF2 induces neuron differentiation, survival and regeneration. The 17 kDa porcine sequence has 95 % aa identity with human and sheep FGF basic.

Molecular Weight: 16.34 kDa

NCBI Accession: [NM_174056](#), [NP_776481](#)

UniProt: [P13109](#)

Pathways: [RTK Signaling](#), [Fc-epsilon Receptor Signaling Pathway](#), [EGFR Signaling Pathway](#), [Neurotrophin Signaling Pathway](#), [C21-Steroid Hormone Metabolic Process](#), [Inositol Metabolic Process](#), [Glycosaminoglycan Metabolic Process](#), [Protein targeting to Nucleus](#), [S100 Proteins](#)

Application Details

Application Notes: The ED50 for stimulation of cell proliferation in human umbilical vein endothelial cells (HUVEC) by porcine FGF-2 has been determined to be in the range of 0.1-2 ng/mL.

Restrictions: For Research Use only

Handling

Format: Lyophilized

Reconstitution: The porcine FGF-2 is supplied in lyophilized form and can be reconstituted with ddH₂O at 50 µg/mL. This solution can be diluted into other buffered solutions or stored frozen for future use. For long term storage we would recommend to add at least 0.1 % human or bovine serum

Handling

albumin.

Buffer: 0.5X PBS

Storage: RT, -20 °C, -80 °C

Storage Comment: The lyophilized porcine FGF-2, though stable at room temperature, is best stored in working aliquots at -20°C to -70°C