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Datasheet for ABIN2666435 FGF6 Protein (AA 41-208, N-Term)



Overview

Quantity:	10 µg
Target:	FGF6
Protein Characteristics:	N-Term, AA 41-208
Origin:	Human
Source:	Escherichia coli (E. coli)
Protein Type:	Recombinant
Biological Activity:	Active
Application:	Western Blotting (WB), Immunofluorescence (IF), Immunohistochemistry (IHC)
Product Details	
Purity:	> 95 % , as determined by Coomassie stained SDS-PAGE.
Sterility:	0.22 µm filtered
Endotoxin Level:	Less than 0.01 ng per μg cytokine as determined by the LAL method.
Target Details	
Target:	FGF6
Alternative Name:	FGF-6 (FGF6 Products)
Background:	FGF-6 is a member of the fibroblast growth factor (FGF) family, and it is closely related in
	structure to FGF-4. FGF-6 exhibits a very restricted expression profile predominantly in the
	developing muscle in embryos. FGF-6 mRNA can also be detected in testis, heart, and skeletal

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	lineages. In vitro studies have shown that the effects of FGF-6 are concentration dependent. At
	lower concentration, FGF-6 can increase the expression of many muscle cell differentiation
	markers. At higher concentrations, FGF-6 can downregulate the expression of myogenic
	markers and some myogenic transcription factors, and can delay C2 myogenic cell
	differentiation. Injection of FGF-6 recombinant protein into damaged mouse muscle can induce
	cyclin D1 mRNA and differentiation markers, including Cdkl1, MHC I and Tn1, which results in
	the acceleration of muscle regeneration. It has been shown that the expression of FGF-6 can
	transiently be upregulated by muscle injuries in both fast and slow myofibers. FGF-6 can
	stimulate migration of myogenic stem cells and also control the maintenance of muscle
	progenitor cells. During muscle regeneration, it has been shown that FGF-6 can be released
	from necrotic myofibers and be sequestered by basal laminae. FGF-6 regulates muscle
	differentiation through a calcineurin-dependent pathway and regulates myofiber size through
	IGF-II/TGF2R pathway. FGF-6 is also involved in bone metabolism.
Molecular Weight:	The 169 amino acid recombinant protein has a predicted molecular mass of approximately
	18.9 kDa. The DTT-reduced and non-reduced protein migrates at approximately 20 kDa by SDS-
	PAGE. The predicted N-terminal amino acid is Met.
Pathways:	RTK Signaling, Fc-epsilon Receptor Signaling Pathway, EGFR Signaling Pathway, Neurotrophin
	Signaling Pathway

Application Details

Buffer:

Application Notes:	Optimal working dilution should be determined by the investigator.
Comment:	Biological activity: The ED50 is $0.02 - 0.1$ ng/mL, corresponding to a specific activity $1.0 - 5.0$ x 107 units/mg, as determined by a dose-dependent proliferation of NIH3T3 cells in the presence of 1.5μ g/mL heparin.
Restrictions:	For Research Use only
Handling	
Format:	Liquid
Reconstitution:	For maximum results, quick spin vial prior to opening. Stock solutions should be prepared at no less than 10 μ g/mL in sterile buffer (PBS, HPBS, DPBS, and EBSS) containing carrier protein such as 1 % BSA or HSA.

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0.22 µm filtered protein solution is in PBS, pH 7.2, 10 % Glycerol and 1 % CHAPS.

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Handling Advice:	Avoid repeated freeze/thaw cycles.
Storage:	-20 °C
Storage Comment:	Human FGF-6 is not stable at 37°C. Unopened vials can be stored between 2°C and 8°C for one
	week, at -20°C for three months, or at -70°C for 6 months.