



[Go to Product page](#)

Datasheet for ABIN2666433
FGF3 Protein (AA 28-212, N-Term)

Overview

Quantity:	10 µg
Target:	FGF3
Protein Characteristics:	AA 28-212, N-Term
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 0.01ng per µg cytokine as determined by the LAL method.

Target Details

Target:	FGF3
Alternative Name:	FGF-3 (FGF3 Products)
Background:	FGF-3 is a member of the fibroblast growth factor family. The mouse FGF-3, originally named Int-2, was identified as a proto-oncogene that is activated by nearby integration of mouse mammary tumor viruses in virus-induced tumors. The amplification of the FGF-3 gene has been found in many cancer types including squamous cell carcinoma, epithelial ovarian tumors,

Target Details

breast cancer, and bladder cancer. FGF-3 is also associated with tumor metastasis and recurrence in human hepatocellular carcinoma. Like many other FGF proteins, FGF-3 plays important roles during embryonic development. FGF-3 is required for normal inner ear development including placode induction, maintenance, and otic vesicle formation. The role of FGF-3 in ear development is conserved amongst different vertebrates including mouse, chicken, and zebrafish. It has been shown that FGF-3, FGF-8, and FGF-10 play redundant and unique roles in ear development. FGF-3 is also important for early hindbrain patterning. The hindbrain boundary cells-derived FGF-3 regulates the expression of multiple markers at hindbrain boundaries. The involvement of FGF-3 in cardiovascular development also has been reported and is described to be in two forms. The two forms of FGF-3 describe a secreted form that induces proliferation and another form that localizes in the nucleus and inhibits cell proliferation. The nuclear isoform binds rpS2 and this binding has been suggested to interfere with ribosomal biogenesis.

Molecular Weight: The 192 amino acid recombinant protein has a predicted molecular mass of approximately 22 kDa. The DTT-reduced and non-reduced protein migrate at approximately 22 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

Application Notes: Optimal working dilution should be determined by the investigator.

Comment: Biological activity: The ED50 is 100 - 200 ng/ml, corresponding to a specific activity of 5.0 -10 x 10³ units/mg, as determined by a dose-dependent stimulation of NIH3T3 cell proliferation in the presence of 2 µg/ml of heparin.

Restrictions: For Research Use only

Handling

Format: Liquid

Reconstitution: For maximum results, quick spin vial prior to opening. The protein can be aliquoted and stored at -20 °C to -70 °C. Stock solutions can also be prepared at 50 - 100 µg/mL in sterile buffer (PBS, HPBS, DPBS, or EBSS) containing carrier protein such as 0.2-1 % BSA or HSA and stored in working aliquots at -20 °C to -70 °C.

Buffer: 0.22 µm filtered protein solution is in 20 mM Tris, pH 7.0, 100 mM NaCl, 1 mM EDTA, and 10 %

Handling

Glycerol.

Handling Advice: Avoid repeated freeze/thaw cycles.

Storage: -20 °C

Storage Comment: Human FGF-3 is unstable at room temperature. Unopened vial can be stored at -20°C for six months, or at -70°C for one year.