

## AR50006PU-N

## Human FGF acidic / FGF1 - Purified

|                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
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| <b>Alternate names:</b>  | Acidic fibroblast growth factor, Beta-endothelial cell growth factor, ECGF-beta, FGFA, HBGF-1, HBGF1, Heparin-binding growth factor 1                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Quantity:</b>         | 0.5 mg                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Concentration:</b>    | 1 mg/ml (determined by Bradford assay)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Background:</b>       | Acidic fibroblast growth factor(aFGF) belongs to the fibroblast growth factor family. It is a potent mitogenic agent. aFGF has been detected in large amounts in the brain. Other cells known to express FGF acidic include hepatocytes, vascular smooth muscle cells, CNS neurons, skeletal muscle cells, fibroblasts, keratinocytes, endothelial cells, intestinal columnar epithelium cells and pituitary basophils and acidophils. The growth factor acts through activation of specific cell-surface receptors leading to intracellular tyrosine phosphorylation cascade. |
| <b>Uniprot ID:</b>       | <a href="#">P05230</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>NCBI:</b>             | <a href="#">NP_000791</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>GenelD:</b>           | <a href="#">2246</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Species:</b>          | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Source:</b>           | E. coli                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Format:</b>           | <b>State:</b> Liquid purified protein<br><b>Purity:</b> >95% by SDS - PAGE<br><b>Buffer System:</b> 20 mM Tris, pH 7.0, 100 mM NaCl                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Description:</b>      | Recombinant human aFGF was overexpressed in E. coli and purified by conventional chromatography.<br><b>AA Sequence:</b><br>MFNLPPGNYK KPKLLYCSNG GHFLRILPDG TVDGTRDRSD QHIQLQLSAE SVGEVYIKST<br>ETGQYLAMDT DGLLYGSQTP NEECLFLERL EENHYNTYIS KKHAENWFLV GLKKNKGSKCR<br>GPRTHYGQKA ILFLPLPVSS D<br><b>Specific Activity:</b> The ED50 for this effect is < 2.9 ng/ml, measured in a cell proliferation assay using NIH-3T3 cell (which corresponds to > 340,000 units/ml).<br><b>Molecular weight:</b> 15.9 kDa (141aa), confirmed by MALDI-TOF.                                 |
| <b>Storage:</b>          | Store undiluted at 2-8°C for one week or (in aliquots) at -20°C to -80°C for longer. Avoid repeated freezing and thawing.<br>Shelf life: one year from despatch.                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>General Readings:</b> | Jaye M. et al., (1986) Science. 233, 541-544. Mergia A. et al., (1989) Biochem. Biophys. Res. Commun. 164, 1121-1129. Stauber DJ. et al., (2000) Proc. Natl. Acad. Sci. U.S.A. 97, 49-54.                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Protocols:</b>        | 1. Cell Line: NIH-3T3 (Mus musculus/ embryo)<br>2. Maintenance Condition: RPMI 1640 containing 10% FBS<br>3. Assay Medium: serum free RPMI 1640<br>4. Cell density: 20,000 cells/well (96 well plate, final volume 100ul)<br>5. Serum Free Starvation: 24hr with RPMI1640                                                                                                                                                                                                                                                                                                      |

6. Incubation Time: 24 hr (after sample treatment)
7. Concentration Range: 1 pg/ml - 10 ug/ml (10-fold dilution)
8. Detection method: BrdU assay

**Pictures:**

