FGF-2
Fibroblast Growth Factor, basic
human, recombinant, *E. coli*

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Amount</th>
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<td>PR-416</td>
<td>50 µg</td>
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For *in vitro* use only
Quality guaranteed for 12 months
Store at -20°C

Avoid freeze / thaw cycles

Form
Lyophilized. Recombinant FGF-2 was lyophilized from a 1 mg/ml solution in PBS pH 7.4.

Solubility
It is recommended to reconstitute the lyophilized FGF in sterile bidest H₂O not less than 100 µg/ml, which can then be further diluted to other aqueous solutions. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA).

Activity
ED$_{50}$: < 0.5 ng/ml corresponding to a specific activity of 2 x 10$^6$ Units/mg, calculated by the dosedependent proliferation of BAF3 cells expressing FGF receptors (measured by 3H-thymidine uptake).

Molecular Weight
17 kDa

Purity
≥ 95% by SDS-PAGE and RP-HPLC

Description
FGF-2 is a single-chain polypeptide growth factor that plays a significant role in the process of wound healing and is a potent inducer of angiogenesis. Several different forms of the human protein exist ranging from 18-24 kDa in size due to the use of alternative start sites within the *fgf-2* gene. It has a 55% amino acid residue identity to FGF-1 and has potent heparinbinding activity. The growth factor is an extremely potent inducer of DNA synthesis in a variety of cell types from mesoderm and neuroectoderm lineages. It was originally named basic fibroblast growth factor based upon its chemical properties and to distinguish it from acidic fibroblast growth factor.

Other homologous FGFs belonging to the same family are int-2 (FGF-3), FGF-5, FGF-6, K-FGF, and KGF (keratinocyte growth factor, FGF-7). All factors are products of different genes, some of which are oncogene products (FGF-3, FGF-4, FGF-5).

Recombinant Human FGF-basic (FGF-2) produced in *E. coli* is a single, non-glycosylated, polypeptide chain containing 155 amino acids and having a molecular mass of 17.35 kDa.

Recombinant FGF-2 is purified by proprietary chromatographic techniques.

Selected References:
Chadi et al. (2004) FGF-2 and S100beta immunoreactivities increase in reactive astrocytes, but not in microglia, in ascending dopamine pathways following a striatal 6-OHDA-induced partial lesion of the nigrostriatal system. Cell Biol. Int. 28:849.