Technical Data Sheet

Recombinant Human Fibroblast Growth Factor-basic (rHuFGF-2)

Human Fibroblast Growth Factor-basic

Fibroblast Growth Factor-basic (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 percent amino acid residue identity to FGF-1 and has potent heparin-binding 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 FGF 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 Fibroblast Growth Factor-basic (rHuFGF-2)

Product Code	RC215-13
Source:	*Escherichia coli.*
Molecular Weight:	Approximately 16.5 kDa, a single non-glycosylated polypeptide chain containing 147 amino acids.
Quantity:	10μg/50μg/1000μg
Purity:	>96% by SDS-PAGE and HPLC analyses.
Biological Activity:	Fully biologically active when compared to standard. The ED50 determined by a cell proliferation assay using murine NR6R/3T3 cells is less than 0.6 ng/ml, corresponding to a specific activity of ＞1.7×10^6 IU/mg.
Physical Appearance:	Sterile Filtered White lyophilized (freeze-dried) powder.
Formulation:	Lyophilized from a 0.2μm filtered concentrated solution in PBS, pH 7.4.
AA Sequence:	MPALPEDGGS GAFPPGHFKD PKRLYCKNGG FFLRIHPDGR VDGVREKSDP HIKLQLQAEE RGVVSIKGVC ANRYLAMKED GRLLASKCVT DECFFFERLE SNNYNTYRSR KYTSWYVALK RTGQYKLGSK TGPGQKAILF LPMSAKS
Endotoxin level:	Less than 1EU/μg of rHuFGF-2 as determined by LAL method.
Reconstitution:	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1% BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at <-20°C. Further dilutions should be made in appropriate buffered solutions.

Storage: This lyophilized preparation is stable at 2-8°C, but should be kept at -20°C for long term storage, preferably desiccated. Upon reconstitution, the preparation is stable for up to one week at 2-8°C. For maximal stability, apportion the reconstituted preparation into working aliquots and store at -20°C to -70°C. **Avoid repeated freeze/thaw cycles**.

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