

## Recombinant Human Fibroblast Growth Factor 9

#R00109

Size: 5 µg/100 µg/500 µg

### Stability & Storage

Use a manual defrost freezer and avoid repeated freeze-thaw cycles.

- 12 months from date of receipt, -20 to -70 °C as supplied.
- 1 month, 2 to 8 °C under sterile conditions after reconstitution.
- 3 months, -20 to -70 °C under sterile conditions after reconstitution.



**Warning:** This product is intended for scientific research only. It is not to be used for medical or diagnostic procedures in humans or animals, nor as a food, cosmetic, or household product.

### Background

Fibroblast growth factor-9 (FGF-9) is a member of the fibroblast growth factor (FGF) family. All FGF family members are heparin binding growth factors with a core 120 amino acid (a.a.) FGF domain that allows for a common tertiary structure. FGF-9 plays an important role in the regulation of embryonic development, cell proliferation, cell differentiation and cell migration. This protein was isolated as a secreted factor that exhibits a growth-stimulating effect on cultured glial cells. FGF-9 is a monomer and interacts with FGFR1, FGFR2, FGFR3 and FGFR4. The human FGF-9 shares 98 % a.a. sequence identity with mouse, rat, equine, porcine, and bovine FGF-9.

### AA Sequence

APLGEVGN YFGVQDAVPFGNVPVLPVDSPVLLSDHL  
GQSEAGGLPRGPAVTDL DHLKGILRRRQLYCRTGFH  
LEIFPNGTIQGTRKDHSRFGILEFISIAVGLVSIRGVDS

GLYLG MNEKGELYGSEKLTQECVFREQFEENWYNTY  
SSNLYKHVDTGRRYYVALNKDGTREGTRTKRHQKF  
THFLPRPVD PDKVPELYKDILSQS

### Reconstitution

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in 1 × PBS 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.

### Product Specification

|                            |                                                                                                                                                                                      |
|----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Synonyms</b>            | GAF, Glia-activating factor, HBGF-9                                                                                                                                                  |
| <b>Accession</b>           | P31371                                                                                                                                                                               |
| <b>GeneID</b>              | 2254                                                                                                                                                                                 |
| <b>Species</b>             | Human                                                                                                                                                                                |
| <b>Source</b>              | Escherichia coli.                                                                                                                                                                    |
| <b>Molecular Weight</b>    | Approximately 23.3 kDa, a single non-glycosylated polypeptide chain containing 207 amino acids.                                                                                      |
| <b>Purity</b>              | > 95 % by SDS-PAGE and HPLC analyses.                                                                                                                                                |
| <b>Biological Activity</b> | Fully biologically active when compared to standard. The ED <sub>50</sub> as determined by thymidine uptake assay using FGF-receptors transfected BaF3 cells is less than 0.5 ng/ml, |

|                            |                                                                               |
|----------------------------|-------------------------------------------------------------------------------|
|                            | corresponding to a specific activity of $> 2.0 \times 10^6$ IU/mg.            |
| <b>Physical Appearance</b> | Sterile Filtered White lyophilized (freeze-dried) powder.                     |
| <b>Formulation</b>         | Lyophilized from a 0.2 $\mu$ m filtered concentrated solution in PBS, pH 7.4. |
| <b>Endotoxin</b>           | Less than 1 EU/ $\mu$ g of rHuFGF-9 as determined by LAL method.              |