

## Recombinant Human FGF-9

### Information

|                     |                                                                                                                                                                                                                                                                                                                               |
|---------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Gene ID             | 2254                                                                                                                                                                                                                                                                                                                          |
| Accession #         | P31371                                                                                                                                                                                                                                                                                                                        |
| Alternate Names     | GAF, Glia-activating factor, HBGF-9                                                                                                                                                                                                                                                                                           |
| Source              | <i>Escherichia coli</i> .                                                                                                                                                                                                                                                                                                     |
| M.Wt                | Approximately 23.3 kDa, a single non-glycosylated polypeptide chain containing 207 amino acids.                                                                                                                                                                                                                               |
| AA Sequence         | APLGEVGNFY GVQDAVPFGN VPVLPVDSPV LLSDDLQSE<br>AGGLPRGPAV TDLHLKGIL RRRQLYCRTG FHLEIFPNGT<br>IQGTRKDHSR FGILEFISIA VGLVSIRGVD SGLYLGMEK GELYGSEKLT<br>QECVFREQFE ENWYNTYSSN LYKHVDTGRR YYVALNKDGT<br>PREGTRTKRH QKFTHFLPRP VDPDKVPELY KDILSQS                                                                                  |
| Appearance          | Sterile Filtered White lyophilized (freeze-dried) powder.                                                                                                                                                                                                                                                                     |
| Stability & Storage | Use a manual defrost freezer and avoid repeated freeze-thaw cycles.<br>- 12 months from date of receipt, -20 to -70 °C as supplied.<br>- 1 month, 2 to 8 °C under sterile conditions after reconstitution.<br>- 3 months, -20 to -70 °C under sterile conditions after reconstitution.                                        |
| Formulation         | Lyophilized from a 0.2 µm filtered concentrated solution in PBS, pH 7.4.                                                                                                                                                                                                                                                      |
| 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. |
| Biological Activity | Fully biologically active when compared to standard. The ED50 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 × 10 <sup>6</sup> IU/mg.                                                                               |
| Shipping Condition  | Gel pack.                                                                                                                                                                                                                                                                                                                     |
| Handling            | Centrifuge the vial prior to opening.                                                                                                                                                                                                                                                                                         |
| Usage               | For Research Use Only! Not to be used in humans.                                                                                                                                                                                                                                                                              |

### Components and Storage

| Components              | 5 µg | 100 µg | 500 µg |
|-------------------------|------|--------|--------|
| Recombinant Human FGF-9 | 5 µg | 100 µg | 500 µg |

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.

## Quality Control

|           |                                                            |
|-----------|------------------------------------------------------------|
| Purity    | > 95 % by SDS-PAGE and HPLC analyses.                      |
| Endotoxin | Less than 1 EU/μg of rHuFGF-9 as determined by LAL method. |

## Description

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.

## Reference

1. Miyamoto MNaruo K, Seko C, et al. 1993. Mol Cell Biol. 13:4251-9.
2. Santos-Ocampo S, Colvin JS, Chellaiah A, et al. 1996. J Biol Chem. 271:1726-31.
3. Chellaiah A, Yuan W, Chellaiah M, et al. 1999. J Biol Chem. 274:34785-94.

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