11 Park Drive, Suite 12
Boston, MA 02215

Human Fibroblast Growth Factor-9 (FGF-9)

ORDERING INFORMATION

Catalog No: rAP-0026;
Size: 5 µg; 20 µg
Storage: <- 20° C

Synonyms:

GAF (Glia-activating factor), HBGF-9, MGC119914, MGC119915, FGF-9.

Introduction:

The human FGF-9 cDNA encodes a 208 amino acid residue protein that contains a single, potential N-linked glycosylation site. The native protein is glycosylated and is efficiently secreted after synthesis, although FGF -9 lacks a typical secretion signal. Rat and mouse FGF-9 show a very high homology to human FGF-9. The transcripts for FGF-9 have been found in brain and in kidney tissue. Fibroblast Growth Factor-9 is a member of the fibroblast growth factor (FGF) family. FGF family members possess broad mitogenic and cell survival activities, and are involved in a variety of biological processes, including embryonic development, cell growth, morphogenesis, tissue repair, tumor growth and invasion. FGF9 was isolated as a secreted factor that exhibits a growth-stimulating effect on cultured glial cells. In nervous system, this protein is produced mainly by neurons and may be important for glial cell development. Expression of the mouse homolog of this gene was found to be dependent on Sonic hedgehog (Shh) signaling. Mice lacking the homolog gene displayed a male-to-female sex reversal phenotype, which suggested a role in testicular embryogenesis Fibroblast Growth Factor 9 may have a role in glial cell growth and differentiation during development, gliosis during repair and regeneration of brain tissue after damage, differentiation and survival of neuronal cells, and growth stimulation of glial tumors.

Description:

Fibroblast Growth Factor-9 Human Recombinant produced in Sf9 insect cells is a single, glycosylated, polypeptide chain containing 208 amino acids and having a molecular mass of 23 kDa.
The FGF-9 is purified by proprietary chromatographic techniques.

Source:

Baculovirus

Physical Appearance:

Sterile Filtered white lyophilized powder.

Formulation:

The sterile protein powder is lyophilized with no additives.

Solubility:

It is recommended to reconstitute the lyophilized Fibroblast Growth Factor-9 Human Recombinant sterile 18MΩ-cm H_2O not less than 100µg/ml, which can then be further diluted to other aqueous solutions.

Stability:

Lyophilized Fibroblast Growth Factor 9 Human Recombinant although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution FGF-9 should be stored at 4°C between 2-7 days and for future use below -18°C.
For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA).
Please prevent freeze-thaw cycles.

Contact & Ordering Information: Angio-Proteomie, 11 Park Drive, Suite 12, Boston, MA 02215, USA. Fax: (480) 247-4337, angioproteomie@gmail.com

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Purity:
Greater than 95.0% as determined by:
(a) Analysis by RP-HPLC.
(b) Analysis by SDS-PAGE.

Amino acid sequence:
The sequence of the first five N-terminal amino acids was determined and was found to be Met-Ala-Pro-Leu-Gly.

Biological Activity:
The ED50, calculated by the dose-dependant proliferation of BAF3 cells expressing FGF receptors (measured by ^{3}H-thymidine uptake) is <0.5 ng/ml, corresponding to a specific activity of 5.5 x 10^{6} Units/mg.

Protein content:
Protein quantitation was carried out by two independent methods:

1. UV spectroscopy at 280 nm using the absorbency value of 0.8 as the extinction coefficient for a 0.1% (1mg/ml) solution. This value is calculated by the PC GENE computer analysis program of protein sequences (IntelliGenetics).

2. Analysis by RP-HPLC, using a calibrated solution of FGF-9 as a Reference Standard.

Usage:
Angio-Proteomie's products are furnished for LABORATORY RESEARCH USE ONLY. The product may not be used as drugs, agricultural or pesticidal products, food additives or household chemicals.