

Recombinant Mouse Fibroblast Growth Factor-9 (rm FGF-9)

Synonyms: GAF (Glia-activating factor), Heparin Binding Factor- 9, HBGF-9

Introduction: 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. FGF-9 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: Recombinant mouse Fibroblast Growth Factor-9 produced in E.Coli is a single, non-glycosylated, polypeptide chain containing 205 amino acids and having a molecular mass of 23.3 kDa. The rm FGF-9 is purified by proprietary chromatographic techniques.

Source: *Escherichia Coli*.

Physical Appearance: Sterile filtered white lyophilized (freeze-dried) powder.

Formulation: Lyophilized from a 0.2µm filtered solution in 10mM Tris, pH 8.0, 0.15M Ammonium Sulfate. The aliquots of 1µg and 2µg contain Trehalose 5% (w/vol) for better recovery.

Solubility: It is recommended to reconstitute the lyophilized rm FGF-9 in sterile H₂O not less than 100 µg/ml which can then be further diluted to other aqueous solutions.

Stability: Lyophilized rm FGF-9 although stable at room temperature for 3 weeks, should be stored desiccated below -18° C. Upon reconstitution rm 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.

Purity: Greater than 95.0% as determined by RP-HPLC and by SDS-PAGE.

Amino Acid Sequence: The sequence of the first five N-terminal amino acids was determined and was found to be Pro-Leu-Gly-Glu-Val.

Biological Activity: The ED₅₀, calculated by the dose-dependant proliferation of BAF3 cells expressing FGF receptors (measured by ³H-thymidine uptake) is <0.5 ng/ml, corresponding to a specific activity of 2 x 10⁶ Units/mg.

This material is offered for **research only**. Not for use in human. For in vitro use only. ImmunoTools will not be held responsible for patent infringement or other violations that may occur with the use of our products.

<i>small</i>	2 µg	Cat.N°	12343632
<i>medium</i>	10 µg	Cat.N°	12343633
<i>large</i>	50 µg	Cat.N°	12343655

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Gladiolenweg 2; 26169 Friesoythe; Germany
 phone:+49-(0)4491-400997, fax:+49-(0)4491-400998, info@immunotools.com
www.immunotools.com