Recombinant Human Fibroblast Growth Factor-9 (rh FGF-9)

Synonyms: GAF (Glia-activating factor), HBGF-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. FGF-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 FGF-9 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 FGF-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 human Fibroblast Growth Factor 9 produced in Sf9 insect cells is a single, glycosylated, polypeptide chain containing 208 amino acids and having a molcular mass of 23 Dalton.The FGF-9 is purified by proprietary chromatographic techniques.

Source: *Escherichia coli*

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

Formulation: lyophilized from 0.2 µm filtered solution in 25 mM Na_2HPO_4, 300mM NaCl, pH 8

Solubility: It is recommended to reconstitute the lyophilized Fibroblast Growth Factor 9 in sterile H_2O, not less than 100µg/ml, which can then be further diluted to other aqueous solutions.

Stability: Lyophilized rh FGF-9 although stable at room temperature for 3 weeks, should be stored desiccated below -18° C. Upon reconstitution rh FGF-basic 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: 95% (verified by SDS-PAGE / silver stain)

Amino acid sequencece: MRPLAFSDAG PHVHYGWGDP IRLRHLYTSG PHGLSSCFLR IRADGVVDCA RGQSAHSLLE IKAVALRTVA IKGVHSVRYL CMGADGKMQG LLQYSEEDCA FEEEIRPDGY NVYRSEKHRL PVSLSSAKQR QLYKNRGFLP LSHFLPMLPM VPEEPEDLRG HLESDMFSSP LETDSMDPFG LVTGLEAVRS PSFEK

Biological Activity: ED_{50}=100-150 ng/ml, by the dose-dependent stimulation of the proliferation of balb/c 3T3 cells.

Endotoxicity: The endotoxin level is less than 1 EU / µg determined by LAL method.

This material is offered for **research use 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.

small	5 µg	Cat.N°	11343630
medium	20 µg	Cat.N°	11343634
large	100 µg	Cat.N°	11343636
x-large	500 µg	Cat.N°	11343637

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