

FGF-9

Catalog # PVGS1650

Specification

FGF-9 - Product Information

Primary Accession Species Mouse <u>P54130</u>

Sequence Met1-Ser208

Purity > 95% as analyzed by SDS-PAGE

Endotoxin Level < 1 EU/ μg of protein by LAL method

Biological Activity Measured in a cell proliferation assay using Balb/3T3 mouse embryonic fibroblast cells. The ED₅₀ for this effect is 4.14 ng/ml.

Expression System E. coli

Formulation

Supplied as a 0.2 µm filtered solution in 20 mM Tris, 150 mM NaCl, 5% Trehalose, 1 mM EDTA, 20% glycerol, 1 mM DTT, pH 8.5.

Storage & Stability Upon receiving, this product remains stable for up to 6 months at -70°C or below, the product can be stored for 2-3 weeks at 2-8°C or 3 months at -20°C. Avoid repeated freeze-thaw cycles.

FGF-9 - Additional Information

Gene ID 14180

Other Names Fibroblast growth factor 9, FGF-9, Glia-activating factor, GAF, HBGF-9, Fgf9, Fgf-9

Target Background

Fibroblast growth factor-9 (FGF-9) is an approximately 26 kDa secreted glycoprotein of the FGF family. Secreted mouse FGF-9 lacks the N-terminal 1-3 aa and shares >98% sequence identity with rat, human, equine, porcine and bovine FGF-9. FGF-9 plays an important role in the regulation of embryonic development, cell proliferation, cell differentiation and cell migration. In the mouse embryo, the location and timing of FGF-9 expression affect the development of the skeleton, cerebellum, lungs, heart, vasculature, digestive tract, and testes. It 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. Deletion of mouse FGF-9 is lethal at birth due to lung hypoplasia, and causes rhizomelia,



or shortening of the proximal skeleton. An unusual constitutive dimerization of FGF 9 buries receptor interaction sites which lower its activity and increases heparin affinity which inhibits diffusion. A spontaneous mouse mutant, Eks, interferes with dimerization, resulting in monomeric, diffusible FGF-9 that causes elbow and knee synostoses (joint fusions) due to FGF-9 misexpression in developing joints.

FGF-9 - Protein Information

Name Fgf9

Synonyms Fgf-9

Function

Plays an important role in the regulation of embryonic development, cell proliferation, cell differentiation and cell migration. 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.

Cellular Location Secreted.

FGF-9 - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

FGF-9 - Images