

Human FGF9 Protein (Fc Tag)

Catalog Number: 10262-H01H



Sino Biological
Biological Solution Specialist

General Information

Gene Name Synonym:

FGF-9; GAF; HbFG-9; HBGF-9; SYNS3

Protein Construction:

A DNA sequence encoding the mature form of human fibroblast growth factor 9 (NP_002001.1) (Leu 4-Ser 208) was expressed with the fused Fc region of human IgG1 at the N-terminus.

Source: Human

Expression Host: HEK293 Cells

QC Testing

Purity: > 85%, as determined by SDS-PAGE

Bio Activity:

Measured in a cell proliferation assay using Balb/c 3T3 mouse embryonic fibroblasts. The ED₅₀ for this effect is typically 10-60 ng/mL.

Endotoxin:

< 1.0 EU per µg of the protein as determined by the LAL method

Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

Predicted N terminal: Glu 20

Molecular Mass:

The recombinant human Fc/FGF9 is a disulfide-linked homodimeric protein. The reduced monomer consists of 463 amino acids and has a predicted molecular mass of 54 and 37 kDa as estimated in SDS-PAGE under reducing conditions due to glycosylation.

Formulation:

Lyophilized from sterile PBS, pH 7.4

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:

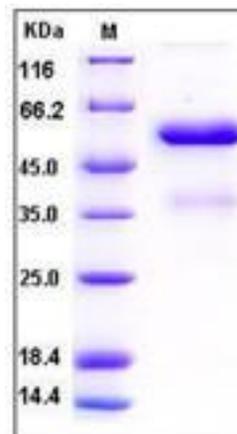
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Fibroblast growth factor 9 (FGF9) also known as Glia-activating factor or Heparin-binding 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. This protein 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. FGF9 plays an important role in the regulation of embryonic development, cell proliferation, cell differentiation and cell migration. FGF9 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.

References

1. Giri D, *et al.* (1999) FGF9 is an autocrine and paracrine prostatic growth factor expressed by prostatic stromal cells. *J Cell Physiol.* 180(1): 53-60.
2. Schmahl J, *et al.* (2004) Fgf9 induces proliferation and nuclear localization of FGFR2 in Sertoli precursors during male sex determination. *Development.* 131(15): 3627-36.
3. Garcès A, *et al.* (2000) FGF9: a motoneuron survival factor expressed by medial thoracic and sacral motoneurons. *J Neurosci Res.* 60(1): 1-9.

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