

# PRODUCT DATA SHEET



Bioworld Technology, Inc.

## Recombinant FGF-9, Mouse

Catalog Number: BK0050-50µg

Source: Escherichia coli.

Quantity: 50µg

### Description:

Fibroblast Growth Factor-9 (FGF-9) is a pleiotropic cytokine and belongs to the heparin-binding FGF family. Like other members in the family, FGF-9 resembles a  $\beta$ -trefoil structure. FGF-9 undergoes reversible dimerization, a common characteristic shared by its subfamily members, FGF-16 and FGF-20. The mutations involved in the homodimerization also affect the affinity for heparin, binding to FGF receptors, and biological activity. In vivo, FGF-9 is expressed in limb buds, the developing skeleton, and in the intestines during late stage embryogenesis. FGF-9 is essential for the development of heart, lung, kidney, cecum, and testes; and the reduction of FGF-9 level leads to premature differentiation. FGF-9 also works along with Bone Morphogenetic Protein-7 (BMP-7) to promote the survival of nephron progenitors. Recombinant mouse Fibroblast Growth Factor (rmFGF-9) produced in E.coli is a single non-glycosylated polypeptide chain containing 207 amino acids. A fully biologically active molecule, rmFGF-9 has a molecular mass of 23.4 kDa analyzed by reducing SDS-PAGE and is obtained by proprietary chromatographic techniques at GenScript.

### Molecular Weight:

23.4 kDa, observed by reducing SDS-PAGE.

### Purity:

> 95% as analyzed by SDS-PAGE and HPLC.

### Biological Activity:

ED50 < 5 ng/mL, measured by a cell proliferation assay using 3T3 cells, corresponding to a specific activity of  $> 2 \times 10^5$  units/mg.

### Physical Appearance:

Sterile Filtered White lyophilized (freeze-dried) powder.

### Formulation:

Lyophilized after extensive dialysis against PBS.

### AA Sequence:

MPLGEVGSYFGVQDAVPFGNVPVLPVD-  
SPVLLNDHLGQSEAGGLPRGPAVTDLD-  
HLKGILRRRQLYCRTGFHLEIFPNGTIQGTRK-  
DHSRFGILEFISIAVGLVSIRGVDSGLYL-  
GMNEKGELYGSEKLTQECVFREQFEEN-  
WYNTYSSNLYKHVDTGRRYYVAL-  
NKDGTREGTRTKRHQKFTH-  
FLRPVDPDKVPELYKDILSQS

### Endotoxin:

< 0.2 EU/µg, determined by LAL method.

### Reconstitution:

Reconstituted in ddH2O at 100 µg/mL.

### Storage:

Lyophilized recombinant mouse Fibroblast Growth Factor (rmFGF-9) remains stable up to 6 months at -80 °C from date of receipt. Upon reconstitution, rmFGF-9 remains stable up to 2 weeks at 4 °C or up to 3 months at -20 °C.

### Usage:

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