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FGF-basic

Catalog # PVGS1434

Specification

FGF-basic - Product Information

Primary Accession P03969

Species
Bovine

Sequence
Pro10-Ser155

Purity
> 95% as analyzed by SDS-PAGE

Endotoxin Level
< 0.2 EU/ µg of protein by gel clotting method

Biological Activity
ED₅₀ < 1.0 ng/ml, measured by a cell proliferation assay using 3T3 cells, corresponding to a specific activity of > 1.0 × 10⁶ units/mg.

Expression System
E. coli

Formulation **Lyophilized after extensive dialysis against PBS.**

Reconstitution
It is recommended that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute the lyophilized powder in PBS up to 100 µg/ml.It is recommended to increase the concentration of NaCl in PBS to 300 mM

Storage & Stability
Upon receiving, this product remains stable for up to 6 months at lower than -70°C. Upon reconstitution, the product should be stable for up to 1 week at 4°C or up to 3 months at -20°C. For long term storage it is recommended that a carrier protein (example 0.1% BSA) be added. Avoid repeated freeze-thaw cycles.

FGF-basic - Additional Information

Other Names
Fibroblast growth factor 2, FGF-2, Basic fibroblast growth factor, bFGF, Heparin-binding growth factor 2, HBGF-2, Kidney-derived growth factor, FGF2

Target Background
Fibroblast Growth Factor-basic (FGF-basic), also known as FGF-2, is a pleiotropic cytokine and one of the prototypic members of the heparin-binding FGF family. Like other FGF family members, FGF-basic has the β trefoil structure. In vivo, FGF-basic is produced by a variety of cells, including cardiomycotes, fibroblasts, and vascular cells. FGF-basic regulates a variety of processes including

cell proliferation, differentiation, survival, adhesion, motility, apoptosis, limb formation and wound healing. FGF-basic can be tumorigenic due to its role in angiogenesis and blood vessel remodeling. The angiogenic effects of FGF-basic can produce beneficial cardioprotection during acute heart injury.

FGF-basic - Protein Information

Name FGF2

Function
Acts as a ligand for FGFR1, FGFR2, FGFR3 and FGFR4 (By similarity). Also acts as an integrin ligand which is required for FGF2 signaling (By similarity). Binds to integrin ITGAV:ITGB3 (By similarity). Plays an important role in the regulation of cell survival, cell division, cell differentiation and cell migration (By similarity). Functions as a potent mitogen in vitro (By similarity). Can induce angiogenesis (By similarity). Mediates phosphorylation of ERK1/2 and thereby promotes retinal lens fiber differentiation (By similarity).

Cellular Location
Secreted {ECO:0000250|UniProtKB:P09038}. Nucleus {ECO:0000250|UniProtKB:P09038}. Note=Exported from cells by an endoplasmic reticulum (ER)/Golgi-independent mechanism (By similarity) Unconventional secretion of FGF2 occurs by direct translocation across the plasma membrane (By similarity). Binding of exogenous FGF2 to FGFR facilitates endocytosis followed by translocation of FGF2 across endosomal membrane into the cytosol (By similarity). Nuclear import from the cytosol requires the classical nuclear import machinery, involving proteins KPNA1 and KPNB1, as well as CEP57 (By similarity) {ECO:0000250|UniProtKB:P09038}

FGF-basic - 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
- Cell Culture

FGF-basic - Images