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Recombinant Human FGF-2/bFGF Heat Stable Protein

Catalog No.: RP01042HS Recombinant

Sequence Information

Species	Gene ID	Swiss Prot
Human	2247	P09038-4

Tags
NO Tag

Synonyms
FGF2; FGFB□Fibroblast growth factor 2; FGF-2; HBGF-2

Product Information

Source	Purification
E. coli	≥ 95 % as determined by SDS-PAGE.

Calculated MW	Observed MW
16.47 kDa	15-25 kDa

Endotoxin
< 0.01 EU per μg of the protein as determined by the LAL method.

Formulation
Lyophilized from 0.22μm filtered solution in PBS (pH 7.4).

Reconstitution
Centrifuge the vial before opening. Reconstitute to a concentration of 0.1-0.5 mg/mL in sterile distilled water. Avoid vortex or vigorously pipetting the protein. For long term storage, it is recommended to add a carrier protein or stablizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

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Background

FGF-2/bFGF is a member of the fibroblast growth factor (FGF) family, a growth factor and signaling protein encoded by the FGF2 gene. Members of the FGF-family exhibit broad mitogenic and cell-survival activities and participate in multiple biological processes, including embryonic development, cell growth, morphogenesis, tissue repair, as well as tumor growth and invasion. In normal tissues, bFGF resides in the basement membrane and the subendothelial extracellular matrix of blood vessels. As a non-glycosylated heparin-binding growth factor, bFGF is expressed in the brain, pituitary gland, kidney, retina, bone, testis, adrenal gland, liver, monocytes, epithelial cells and endothelial cells. bFGF/FGF-2 serves as an essential component for maintaining pluripotency in culture media for all embryonic and induced pluripotent stem cells. Nevertheless, FGF-2 is prone to proteolytic degradation and aggregation, showing poor stability and a short half-life in culture media, which necessitates frequent medium-change operations. The thermostable FGF-2 variant carries partial amino-acid mutations, conferring enhanced stability without compromising biological activity. This thermostable FGF-2 mutant is more stable than wild-type FGF-2.

Basic Information

Description
Recombinant Human FGF-2/bFGF Heat Stable Protein is produced by E.coli cells expression system. The target protein is expressed with sequence (Pro143-Ser288(Met1)) of Human FGF-2/bFGF Heat Stable(Accession #NP_001997.5) fused with No Tag.

Bio-Activity

Shipping
Lyophilized proteins are shipped at ambient temperature.
Liquid proteins are shipped at frozen temperature with dry ice.
Upon receipt, store it immediately at the temperature recommended below.

Storage
Store at -20℃.Store the lyophilized protein at -20℃ to -80 ℃ up to 1 year from the date of receipt.
After reconstitution, the protein solution is stable at -20℃ for 3 months, at 2-8℃ for up to 1 week.
Avoid repeated freeze/thaw cycles.

Operational Notes
For your safety and health, please wear a lab coat and disposable gloves for handling.

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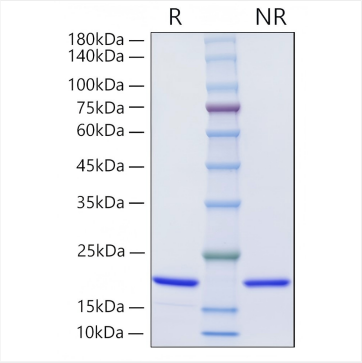
Validation Data



Recombinant Human FGF-2/bFGF Heat Stable Protein was determined by SDS-PAGE under reducing (R) and non-reducing (NR) conditions.

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