

## Recombinant Human Fibroblast Growth Factor 12 (Human FGF-12)

### Product Information

| Product Name   | Cat#      | Size   |
|--|-----------|--------|
| Recombinant Human Fibroblast Growth Factor 12 (Human FGF-12) | 91307ES10 | 10 µg  |
|  | 91307ES60 | 100 µg |
|  | 91307ES76 | 500 µg |

### Product Description

Fibroblast growth factor 12 (FGF12) is a fibroblast growth factor homologous factor, a subset of the FGF superfamily. Human FGF-12 is synthesized as a 243 aa protein. In human Vascular smooth muscle cells (VSMCs), FGF12 expression was inhibited at the transcriptional level by platelet-derived growth factor-BB. FGF12 inhibited cell proliferation through the p53 pathway and upregulated the key factors involved in VSMC lineage differentiation, such as myocardin and serum response factor. In addition, FGF12 and other FGF11 subfamily members do not activate any fibroblast growth factor receptors (FGFRs), although they can bind to heparin with high affinity like other FGFs. FGF12 has structural similarity with FGF1 and FGF2, in that it lacks a classical signal sequence and contains a nuclear localization signal, resulting in the accumulation of FGF12 in the nucleus without any release from cells.

### Product Properties

|                            |  |
|----------------------------|--|
| <b>Synonyms</b>            | FGF12, FGF-12, FGF12B, FHF1, FHF-1, fibroblast growth factor 12, fibroblast growth factor 12B  |
| <b>Accession</b>           | NP_004104  |
| <b>GeneID</b>              | 2257   |
| <b>Source</b>              | E.coli-derived human FGF-12 protein, Met1-Thr181.  |
| <b>Molecular Weight</b>    | Approximately 20.5 kDa.  |
| <b>AA Sequence</b>         | MESKEPQLKG IVTRLFSQQG YFLQMHPDGT IDGTKDENSD YTLFNLIPVG LRVVAIQGVK<br>ASLYVAMNGE GYLYSSDVFT PECKFKESVF ENYYVIYSST LYRQQESGRA WFLGLNKEGQ<br>IMKGNRVKKT KPSSHVFPKP IEVCMYREQS LHEIGEKQGR SRKSSGPTM NGGKVVNQDS<br>T  |
| <b>Tag</b>                 | None   |
| <b>Physical Appearance</b> | Sterile Filtered White lyophilized (freeze-dried) powder.  |
| <b>Purity</b>              | >98% by SDS-PAGE and HPLC analyses.  |
| <b>Biological Activity</b> | The biological activity was determined by its binding ability in a functional ELISA. Immobilized recombinant human FGF R4/Fc Chimera at 5 µg/mL (100 µL/well) can bind recombinant human FGF-12 with a linear range of 1.6-100 ng/mL.  |
| <b>Endotoxin</b>           | < 0.1 EU per 1µg of the protein by the LAL method.   |
| <b>Formulation</b>         | Lyophilized from a 0.2 µm filtered concentrated solution in PBS, pH7.4, with 1 mM DTT.   |
| <b>Reconstitution</b>      | We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1% BSA to a concentration of 0.1-1.0 mg/ml. Stock solutions should be apportioned into working aliquots and stored at ≤ -20°C. Further dilutions should be made in appropriate buffered solutions. |

### Shipping and Storage

The products are shipped with ice pack and can be stored at -20°C to -80°C for 1 year.

Recommend to aliquot the protein into smaller quantities when first used and avoid repeated freeze-thaw cycles.

### **Cautions**

1. Avoid repeated freeze-thaw cycles.
2. For your safety and health, please wear lab coats and disposable gloves for operation.
3. For research use only!