Recombinant Human Fibroblast Growth Factor 12

Catalog No: #AP60056

Package Size: #AP60056-1 10ug #AP60056-2 100ug #AP60056-3 500ug

Orders: order@signalwayantibody.com
Support: tech@signalwayantibody.com

Description

Product Name	Recombinant Human Fibroblast Growth Factor 12
Host Species	Escherichia coli.
Purification	> 98 % by SDS-PAGE and HPLC analyses.
Calculated MW	Approximately 20.5 kDa, a single non-glycosylated polypeptide chain containing 181 amino acids.
Target Sequence	MESKEPQLKG IVTRLFSQQG YFLQMHPDGT IDGTKDENSD YTLFNLIPVG LRVVAIQGVK ASLYVAMNGE GYLYSSDVFT PECKFKESVF ENYYVIYSST LYRQQESGRA WFLGLNKEGQ IMKGNRVKKT KPSSHFVPKP IEVCMYREQS LHEIGEKQGR SRKSSGTPTM NGGKVVNQDS T
Formulation	Lyophilized from a 0.2 μm filtered concentrated solution in PBS, pH7.4, with 1 mM DTT.
Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles.- 12 months from date of receipt, -20 to -70 °C as supplied.- 1 month, 2 to 8 °C under sterile conditions after reconstitution.- 3 months, -20 to -70 °C under sterile conditions after reconstitution.

Background

Fibroblast growth factor-12 is a member of the FGF superfamily of molecules contains at least 22 members. Human FGF-12 is synthesized as a 243 aa protein. It lacks a typical signal sequence and is considered to be a cytoplasmic protein. It does, however, possess an N-terminal bipartite nuclear localization signal (NLS) at aa 11 - 18 and 28 - 38. The 243 aa protein has at least one alternate splice form that is 181 aa in length. This is termed FGF-12B. Alternate splicing deletes the N-terminal 66 aa in FGF-12 and replaces them with four aa in FGF-12B. This substitution removes the NLS from the short form. Studies on the short form (12B) show that it cannot bind any of the common FGF receptors. This is consistent with its cytoplasmic localization. It can, however, bind to IB2 (islet brain-2), a cellular kinase scaffold protein, and voltage-gated sodium channels, suggesting FGF-12B plays an important role in intracellular signaling and ion exchange. Mouse and human FGF-12B differ by only one amino acid.

Note: This product is for in vitro research use only