Cytokines

Human Recombinant FGF-5, ACF

Fibroblast growth factor 5, animal component-free

Catalog #	78183	50 µg
	78183.1	100 µg
	78183.2	1000 µg

STEMCELL™ TECHNOLOGIES
Scientists Helping Scientists™ | WWW.STEMCELL.COM
TOLL FREE PHONE 1 800 667 0322 • PHONE +1 604 877 0713
INFO@STEMCELL.COM • TECHSUPPORT@STEMCELL.COM
FOR GLOBAL CONTACT DETAILS VISIT OUR WEBSITE

Product Description

Fibroblast growth factor 5 (FGF-5) is a secreted, heparin-binding member of the FGF subfamily. FGFs possess broad mitogenic and cell survival activities and are expressed during embryonic development. FGF-5 is expressed in the mesenchyme and central nervous system, and in skeletal muscles and hair follicles. FGF-5 promotes cell differentiation and proliferation by binding FGF receptor 1 and FGF receptor 2 (FGFR1 and FGFR2, respectively). FGF-5 plays an important regulatory role in skeletal muscle development. FGF-5 has also been identified with neurons of the limbic system, especially those of the olfactory bulb and pyramidal cells of the hippocampus (Haub & Goldfarb). This product is animal component-free.

Product Information

Alternative Names:	Fibroblast growth factor 5, HBGF-5, Heparin-binding growth factor 5, Smag-82
Accession Number:	P12034
Amino Acid Sequence:	MAWAHGEKRL APKGQPGPAA TDRNPIGSSS RQSSSSAMSS SSASSSPAAS LGSQGSGLEQ SSFQWSPSGR RTGSLYCRVG IGFHLQIYPD GKVNGSHEAN MLSVLEIFAV SQGIVGIRGV FSNKFLAMSK KGKLHASAKF TDDCKFRERF QENSYNTYAS AIHRTEKTGR EWYVALNKRG KAKRGCSPRV KPQHISTHFL PRFKQSEQPE LSFTVTVPEK KNPPSPIKSK IPLSAPRKNT NSVKYRLKFR FG
Predicted Molecular Mass:	27.7 kDa
Species:	Human
Cross Reactivity:	Reported to be species-specific
Formulation:	Lyophilized from a sterile-filtered solution containing sodium phosphate and sodium chloride, pH 7.5.
Source:	E. coli

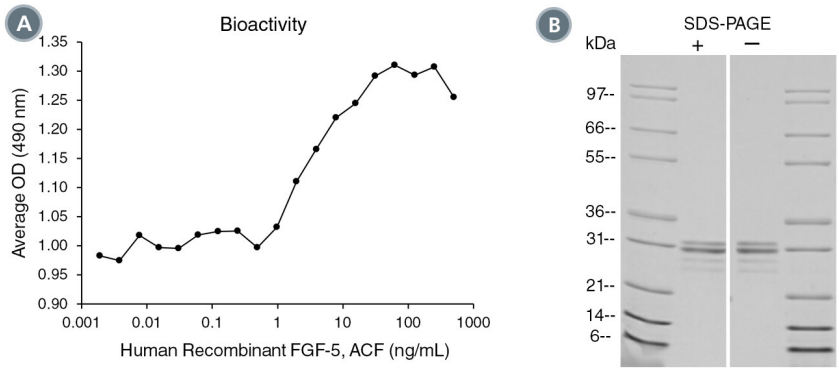
Specifications

Activity:	The specific activity is ≥ 1.0 x 10^5 units/mg (EC50 ≤ 10 ng/mL) as determined by a cell proliferation assay using NR6R-3T3 cells in the presence of 1 µg heparin.
Purity:	≥ 95%
Endotoxin Level:	Measured by kinetic Limulus amebocyte lysate (LAL) analysis and is ≤ 1 EU/µg protein.

Preparation and Storage

Storage:	Store at -20°C to -80°C.
Stability:	Stable as supplied for 12 months from date of receipt.
Preparation:	Centrifuge vial before opening. Bring vial and sterile water to room temperature (15 - 25°C). Reconstitute the product in sterile water to at least 0.1 mg/mL by pipetting the solution down the sides of the vial. Do not vortex. Let solution sit for 1 minute at room temperature (15 - 25°C). If precipitate is observed, centrifuge at 16,000 x g for 1 minute. Remove supernatant and transfer to a new tube, taking care not to disturb the pellet. Discard the pellet. A 10% overfill has been added to compensate for any loss of protein in the precipitate. OPTIONAL: After reconstitution, if product will not be used immediately, dilute with concentrated bovine serum albumin (BSA) to a final BSA concentration of 0.1%. The effect of storage of stock solution on product performance should be tested for each application. As a general guide, do not store at 2 - 8°C for more than 1 month or at -80°C for more than 3 months. Avoid repeated freeze-thaw cycles.

Data



(A) The biological activity of Human Recombinant FGF-5, ACF was tested by its ability to promote proliferation of NR6R-3T3 cells in the presence of 1 µg heparin. Cell proliferation was measured using a fluorometric assay method. The EC50 is defined as the effective concentration of the growth factor at which cell proliferation is at 50% of maximum. The EC50 in the example above is 3.11 ng/mL.
(B) 1 µg of Human Recombinant FGF-5, ACF was resolved with SDS-PAGE under reducing (+) and non-reducing (-) conditions and visualized by Coomassie Blue staining. Human Recombinant FGF-5, ACF has a predicted molecular mass of 27.7 kDa.

Related Products

For a complete list of cytokines, as well as related products available from STEMCELL Technologies, visit www.stemcell.com/cytokines or contact us at techsupport@stemcell.com.

References

Haub O & Goldfarb M. (1991) Expression of the fibroblast growth factor-5 gene in the mouse embryo. Development 112(2): 397–406.