

Cytokines

Human Recombinant FGF-8B, ACF

Fibroblast growth factor 8B, animal
component-free



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

Catalog # 78204
78204.1
78204.2

25 µg
100 µg
1000 µg

Product Description

Fibroblast growth factor 8B (FGF-8B) is a member of the fibroblast growth factor (FGF) family and is an isoform of FGF-8. Cytokines in the FGF family possess broad mitogenic and cell survival activities (Folkman & Klagsbrun; Kimelman & Kirschner) and are involved in a variety of biological processes, including cell proliferation, differentiation, survival, and apoptosis (Folkman & Klagsbrun; Klagsbrun; Rifkin & Moscatelli). FGF-8B signals through FGF receptors (FGFRs) to activate PI3K and MAPK pathways. FGF-8B regulates gastrulation, epithelial-mesenchymal transition, and mesenchymal to epithelial differentiation during embryonic development. FGF-8B has also been found in peripheral blood leukocytes and healthy bone marrow samples (Mattila & Härkönen). FGF-8B has mitogenic effects on somatic cells in the germinal epithelium and is expressed in adult mouse ovarian cells and tissues, which suggests that it regulates maturation of oocytes and seminiferous epithelium in testes (Valve et al.). This product is animal component-free.

Product Information

Alternative Names: AIGF, Androgen-induced growth factor, FGF-8, Fibroblast growth factor-8B, HBGF-8, Heparin-binding growth factor-8

Accession Number: P55075

Amino Acid Sequence: MQVTQSSPN FTQHVREQSL VTDQLSRRLI RTYQLYSRTS GKHVQVLANK RINAMAEDGD PFAKLIVETD TFGSRVRVRG AETGLYICMN KKGKLIASN GKGKDCVFTE IVLENNYTAL QNAKYEGWYM AFTRKGRPRK GSKTRQHQRE VHFMKRLPRG HHTTEQSLRF EFLNYPFTR SLRGSQRTWA PEPR

Predicted Molecular Mass: 22.5 kDa

Species: Human

Cross Reactivity: Mouse

Formulation: Lyophilized from a sterile-filtered solution containing trifluoroacetic acid.

Source: E. coli

Specifications

Activity: The specific activity is $\geq 6.7 \times 10^3$ units/mg ($EC_{50} \leq 150$ ng/mL) as determined by a cell proliferation assay using NR6R 3T3 cells.

Purity: $\geq 95\%$

Endotoxin Level: Measured by kinetic Limulus amoebocyte lysate (LAL) analysis and is ≤ 1 EU/µg protein.

Preparation and Storage

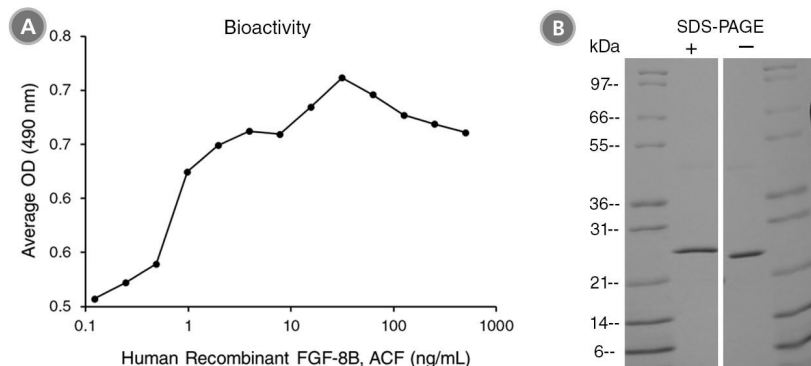
Storage: Store at -20°C to -80°C.

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).

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-8B, ACF was tested by its ability to promote the proliferation of NR6R 3T3 cells in the presence of 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 0.915 ng/mL.

(B) 1 µg of Human Recombinant FGF-8B, ACF was resolved with SDS-PAGE under reducing (+) and non-reducing (-) conditions and visualized by Coomassie Blue staining. Human Recombinant FGF-8B, ACF has a predicted molecular mass of 22.5 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

- Folkman J & Klagsbrun M. (1987) Angiogenic factors. *Science* 235(4787): 442–7.
- Kimelman D & Kirschner M. (1987) Synergistic induction of mesoderm by FGF and TGF-beta and the identification of an mRNA coding for FGF in the early *Xenopus* embryo. *Cell* 51(5): 869–77.
- Klagsbrun M. (1989) The fibroblast growth factor family: structural and biological properties. *Prog Growth Factor Res* 1(4): 207–35.
- Mattila MM & Härkönen PL. Role of fibroblast growth factor 8 in growth and progression of hormonal cancer. *Cytokine Growth Factor Rev* 18(3–4): 257–66.
- Rifkin DB & Moscatelli D. (1989) Recent developments in the cell biology of basic fibroblast growth factor. *J Cell Biol* 109(1): 1–6.
- Valve E et al. (1997) FGF-8 is expressed during specific phases of rodent oocyte and spermatogonium development. *Biochem Biophys Res Commun* 232(1): 173–7.

STEMCELL TECHNOLOGIES INC.'S QUALITY MANAGEMENT SYSTEM IS CERTIFIED TO ISO 13485. PRODUCTS ARE FOR RESEARCH USE ONLY AND NOT INTENDED FOR HUMAN OR ANIMAL DIAGNOSTIC OR THERAPEUTIC USES UNLESS OTHERWISE STATED.

Copyright © 2019 by STEMCELL Technologies Inc. All rights reserved including graphics and images. STEMCELL Technologies & Design, STEMCELL Shield Design, and Scientists Helping Scientists are trademarks of STEMCELL Technologies Canada Inc. All other trademarks are the property of their respective holders. While STEMCELL has made all reasonable efforts to ensure that the information provided by STEMCELL and its suppliers is correct, it makes no warranties or representations as to the accuracy or completeness of such information.