### **Cytokines**

#### **Human Recombinant FGF-17**

Fibroblast growth factor 17

ribrobiast growth factor 17

Catalog # 78179 10 μg

78179.1 50 μg



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### **Product Description**

Fibroblast growth factor 17 (FGF-17) is a heparin-binding member of the FGF family. FGFs possess broad mitogenic and cell survival activities and are expressed during embryonic development. FGFs act primarily on cells of mesodermal and neuroectodermal origin to regulate diverse physiological functions including angiogenesis, cell growth, pattern formation, embryonic development, metabolic regulation, cell migration, and tissue repair (Goldfarb; Green et al.). FGF-17 exerts its developmental roles by signaling through FGF receptors 1c, 2c, 3c, and 4 (Olsen et al.; Zhang et al.). FGF-17 also plays a role in organizing and inducing the patterning in the midbrain-hindbrain junction (Cholfin & Rubenstein; Xu et al.). FGF-17 is expressed in the hindgut, parts of the developing skeleton, tail bud, major arteries, and heart (Maruoka et al.).

#### **Product Information**

Alternative Names: FGF13, Fibroblast growth factor 17

Accession Number: 060258

Amino Acid Sequence: MTQGENHPSP NFNQYVRDQG AMTDQLSRRQ IREYQLYSRT SGKHVQVTGR RISATAEDGN KFAKLIVETD

TFGSRVRIKG AESEKYICMN KRGKLIGKPS GKSKDCVFTE IVLENNYTAF QNARHEGWFM AFTRQGRPRQ

ASRSRQNQRE AHFIKRLYQG QLPFPNHAEK QKQFEFVGSA PTRRTKRTRR PQPLT

Predicted Molecular Mass: 22.7 kDa Species: Human

Cross Reactivity: Reported to be species-specific

Formulation: Lyophilized after dialysis against phosphate-buffered saline.

Source: E. coli

## Specifications

Activity: The specific activity is  $\geq 2.0 \times 10^6$  units/mg (EC50  $\leq 0.5$  ng/mL) as determined by a cell proliferation assay

using BALB/c 3T3 cells.

Purity:  $\geq 95\%$ 

Endotoxin Level: Measured by kinetic Limulus amebocyte lysate (LAL) analysis and is ≤ 0.2 EU/µg protein.

### Preparation and Storage

Storage: Store at -80°C.

Stability: Stable as supplied for 12 months from date of receipt.

Preparation: Centrifuge vial before opening. Reconstitute the product in sterile water to at least 0.1 mg/mL by pipetting the

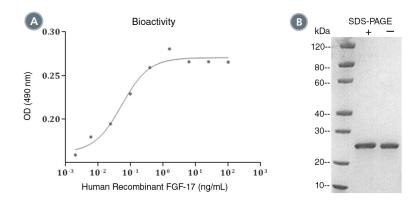
solution down the sides of the vial. Do not vortex. As a general guide, do not store at 2 - 8°C for more than

1 week or at -20°C for more than 3 months. Avoid repeated freeze-thaw cycles.

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#### Data



(A) The biological activity of Human Recombinant FGF-17 was tested by its ability to promote the proliferation of BALB/c 3T3 cells. 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 less than 0.5 ng/mL.

(B) 2 μg of Human Recombinant FGF-17 was resolved with SDS-PAGE under reducing (+) and non-reducing (-) conditions and visualized by Coomassie Blue staining. Human Recombinant FGF-17 has a predicted molecular mass of 22.7 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

Cholfin JA & Rubenstein JLR. (2007) Patterning of frontal cortex subdivisions by Fgf17. Proc Natl Acad Sci USA 104(18): 7652–7. Goldfarb M. (1996) Functions of fibroblast growth factors in vertebrate development. Cytokine Growth Factor Rev 7(4): 311–25. Green PJ et al. (1996) Promiscuity of fibroblast growth factor receptors. Bioessays 18(8): 639–46.

Maruoka Y et al. (1998) Comparison of the expression of three highly related genes, Fgf8, Fgf17 and Fgf18, in the mouse embryo. Mech Dev 74(1–2): 175–7.

Olsen SK et al. (2006) Structural basis by which alternative splicing modulates the organizer activity of FGF8 in the brain. Genes Dev 20(2): 185–98.

Xu J et al. (1999) Genomic structure, mapping, activity and expression of fibroblast growth factor 17. Mech Dev 83(1–2): 165–78. Zhang X et al. (2006) Receptor specificity of the fibroblast growth factor family. The complete mammalian FGF family. J Biol Chem 281(23): 15694–700.

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