

Cytokines

Human Recombinant FGF-16



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Fibroblast growth factor 16

Catalog # 78175
78175.1

10 µg
50 µg

Product Description

Fibroblast growth factor 16 (FGF-16) 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.). In vitro, FGF-16 has been shown to promote the proliferation of brown adipocytes and in rat embryos it is predominantly expressed in these cells. FGF-16 has also been shown to play a critical role in embryonic heart development and is thought to play a cardioprotective role after birth (Hotta et al.; Lu et al.; Wang et al.).

Product Information

Alternative Names: Fibroblast growth factor 16, Metacarpal 4-5 fusion, MF4
Accession Number: O43320
Amino Acid Sequence: AEVGGVFASL DWDLHGFSS LGNVPLADSP GFLNERLGQI EGKLQRGSPT DFAHLKGILR RRQLYCRTGF HLEIFPNGTV HGTRHDHSRF GILEFISLAV GLISIRGVDS GLYLGMNERG ELYGSKKLTR ECVFREQFEE NWNNTYASTL YKHSDSERQY YVALNKDGSP REGYRTRKHQ KFTHFLRPV DPSKLPMSR DLFHYR
Predicted Molecular Mass: 23.6 kDa
Species: Human
Cross Reactivity: Reported to be species-specific
Formulation: Lyophilized after dialysis against phosphate-buffered saline.
Source: CHO

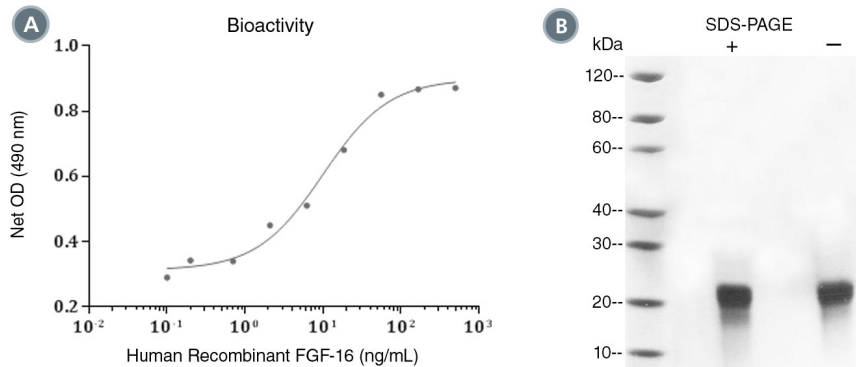
Specifications

Activity: The specific activity is $\geq 5.0 \times 10^4$ units/mg ($EC_{50} \leq 20$ ng/mL) as determined by a cell proliferation assay using BALB/c 3T3 cells.
Purity: $\geq 95\%$
Endotoxin Level: Measured by kinetic Limulus amoebocyte 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.

Data



(A) The biological activity of Human Recombinant FGF-16 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 20 ng/mL.

(B) 2 µg of Human Recombinant FGF-16 was resolved with SDS-PAGE under reducing (+) and non-reducing (-) conditions and visualized by Coomassie Blue staining. Human Recombinant FGF-16 has a predicted molecular mass of 23.6 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

- 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.
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- Wang J et al. (2015) Heart-specific expression of FGF-16 and a potential role in postnatal cardioprotection. *Cytokine Growth Factor Rev* 26(1): 59–66.

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