

Cytokines

Human Recombinant FGF-8A



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

Fibroblast growth factor 8A

Catalog #	78128	10 µg
	78128.1	50 µg
	78128.2	1000 µg

Product Description

Fibroblast growth factor 8A (FGF-8A) is a member of the fibroblast growth factor (FGF) family and is an isoform of FGF-8. FGF-8A binds the FGF receptor (FGFR) and activates Ras/MAPK signaling (Hulstrand & Houston). The FGF family possesses broad mitogenic and cell survival activities (Folkman & Klagsbrun; Kimelman & Kirschner) and is involved in a variety of biological processes, including cell proliferation, differentiation, survival, and apoptosis (Folkman & Klagsbrun; Klagsbrun; Rifkin & Moscatelli). FGF-8 RNA is spliced to produce 4 protein isoforms in humans: FGF-8A, FGF-8B, FGF-8E, and FGF-8F. The functional differences are not fully understood; however, studies in zebrafish and *Xenopus* show that FGF-8A is required for endoderm morphogenesis and neurogenesis (Choe & Crump; Hulstrand & Houston).

Product Information

Alternative Names:	AIGF, AIGFKAL6, Androgen-induced growth factor, FGF8, FGF-8, Fibroblast growth factor 8 (androgen-induced), Fibroblast growth factor 8, HBGF-8, Heparin-binding growth factor 8, MGC149376
Accession Number:	P55075
Amino Acid Sequence:	MQHVVREQLSLV TDQLSRRLIR TYQLYSRTSG KHVQVLANKR INAMAEDGDP FAKLIVETDT FGSRVVRGA ETGLYICMKNK KGKLIKSNK KGKDCVFTEI VLENNYTALQ NAKYEGWYMA FTRKGRPRKG SKTRQHQREV HFMKRLPRGH HTTEQSLRFE FLNYPPFTRS LRGSQRTWAP EPR
Predicted Molecular Mass:	21.3 kDa
Species:	Human
Cross Reactivity:	Mouse
Formulation:	Lyophilized after dialysis against phosphate-buffered saline.
Source:	<i>E. coli</i>

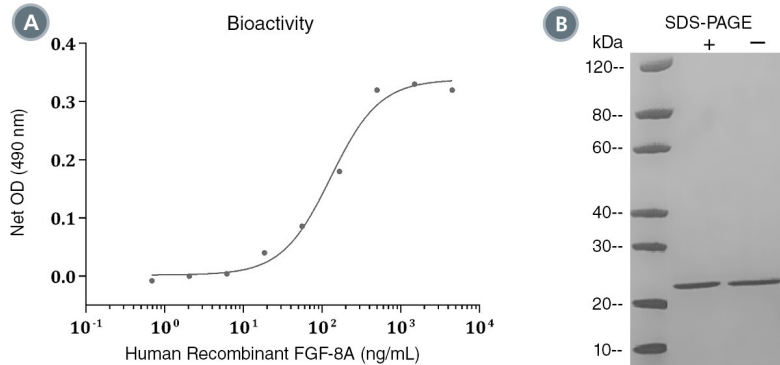
Specifications

Activity:	The specific activity is $\geq 2 \times 10^3$ units/mg ($EC_{50} \leq 500$ ng/mL) as determined by a cell proliferation assay using 3T3 cells in the presence of 1 µg/mL of heparin.
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. Resuspend 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. Store at 2 - 8°C for up to 2 weeks or at -20°C to -80°C for up to 3 months. Avoid repeated freeze-thaw cycles.

Data



(A) The biological activity of Human Recombinant FGF-8A was tested by its ability to promote the proliferation of 3T3 cells in the presence of 1 μ g/ml 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 less than 500 ng/mL.

(B) 2 μ g of Human Recombinant FGF-8A was resolved with SDS-PAGE under reducing (+) and non-reducing (-) conditions and visualized by Coomassie Blue staining.

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

- Choe CP & Crump JG. (2014) Tbx1 controls the morphogenesis of pharyngeal pouch epithelia through mesodermal Wnt11r and Fgf8a. *Development* 141(18): 3583–93.
- Folkman J & Klagsbrun M. (1987) Angiogenic factors. *Science* 235(4787): 442–7.
- Hulstrand AM & Houston DW. (2013) Regulation of neurogenesis by Fgf8a requires Cdc42 signaling and a novel Cdc42 effector protein. *Dev Biol* 382(2): 385–99.
- 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.
- Rifkin DB & Moscatelli D. (1989) Recent developments in the cell biology of basic fibroblast growth factor. *J Cell Biol* 109(1): 1–6.

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 © 2017 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.