

Cytokines

Human Recombinant Follistatin



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 # 78109
78109.1

Follistatin

20 µg
100 µg

Product Description

Follistatin, a glycosylated monomeric protein, is a modulator of transforming growth factor beta (TGF- β) superfamily signaling. It binds and inhibits the function of activin, myostatin, growth differentiation factors, and bone morphogenic proteins (BMP; Hansen & Plomgaard). Follistatin inhibits mesoderm induction, suppresses synthesis and secretion of pituitary follicle-stimulating hormone, regulates liver regeneration, and causes infertility (Guo et al.; Iemura et al.). Follistatin exhibits anti-inflammatory effects, and it could be used as a biomarker in cancer disease (Hansen & Plomgaard).

Product Information

Alternative Names: Activin-binding protein, FSH-suppressing protein, FS, FSP
Accession Number: P19883
Amino Acid Sequence: MGNCWLRQAK NGRCQVLYKT ELSKEECCST GRLSTSWTEE DVNDNTLFKW MIFNGGAPNC IPCKETCENV DCGPGKKCRM NKKNKPRCVC APDCSNITWK GPVCGLDGKT YRNECALLKA RCKEQPELEV QYQGRCKKTC RDVFCPGSST CVVDQTNAY CVTCNRCPE PASSEQYLCG NDGVTYSSAC HLRKATCLLG RSLGLAYEGK CIKAKSCEDI QCTGGKKCLW DFKV
Predicted Molecular Mass: 31.7 kDa
Species: Human
Cross Reactivity: Mouse
Formulation: Lyophilized from a sterile filtered aqueous solution containing sodium phosphate and sodium chloride, pH 7.5.
Source: E. coli

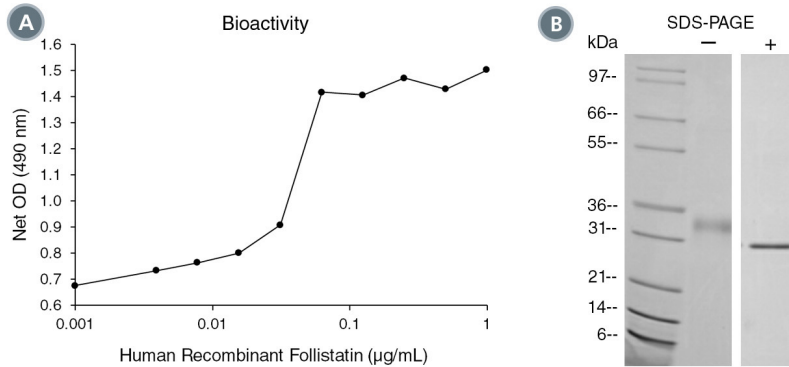
Specifications

Activity: The specific activity is $\geq 5.0 \times 10^3$ units/mg ($EC_{50} \leq 0.20$ µg/mL) as determined by neutralization of human activin A induced cytotoxicity of MPC-11 cells.
Purity: $\geq 95\%$
Endotoxin Level: Measured by kinetic Limulus amoebocyte lysate (LAL) analysis and is ≤ 1.0 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. Resuspend the product in sterile water containing 0.1% bovine serum albumin (BSA) 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 1 month or at -20°C to -80°C for up to 3 months. Avoid repeated freeze-thaw cycles.
NOTE: If reconstituted product will be used immediately BSA is not required.

Data



(A) The biological activity of Human Recombinant Follistatin was tested by neutralization of human activin A induced cytotoxicity of MPC-11 cells. Cell viability was measured after 66 hours using a fluorometric assay method. The EC₅₀ is defined as the effective concentration of the growth factor at which cell viability is at 50% of maximum. The EC₅₀ in the above example is 0.04 µg/mL.

(B) 1 µg of Human Recombinant Follistatin 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, please visit our website at www.stemcell.com/cytokines or contact us at techsupport@stemcell.com.

References

- Guo Q et al. (1998) Overexpression of mouse follistatin causes reproductive defects in transgenic mice. *Mol Endocrinol* 12(1): 96–106.
- Hansen JS & Plomgaard P. (2016) Circulating follistatin in relation to energy metabolism. *Mol Cell Endocrinol* 433: 87–93.
- Iemura S et al. (1998) Direct binding of follistatin to a complex of bone-morphogenetic protein and its receptor inhibits ventral and epidermal cell fates in early *Xenopus* embryo. *Proc Natl Acad Sci USA* 95(16): 9337–42.

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.