

PRODUCT INFORMATION



Follistatin (human, recombinant)

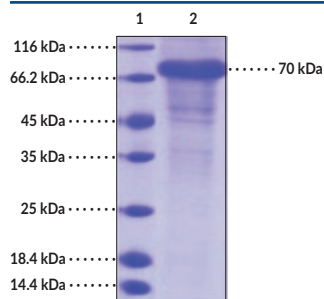
Item No. 31839

Overview and Properties

Synonyms:	Activin-binding Protein, FS, FSH-suppressing Protein, FST
Source:	Active recombinant C-terminal human IgG1 Fc-tagged follistatin expressed in HEK293 cells
Amino Acids:	30-344
Uniprot No.:	P19883
Molecular Weight:	61.7 kDa
Storage:	-80°C (as supplied)
Stability:	≥1 year
Purity:	≥85% estimated by SDS-PAGE
Supplied in:	Lyophilized from sterile PBS, pH 7.4, with 5% trehalose, 5% mannitol, and 0.01% polysorbate
Endotoxin Testing:	<1.0 EU/μg, determined by the LAL endotoxin assay
Bioactivity:	See figures for details

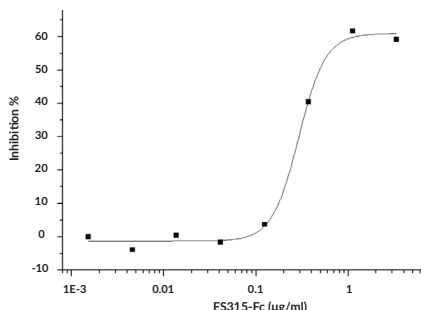
Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Images



Lane 1: MW Markers
Lane 2: Follistatin

SDS-PAGE Analysis of Follistatin. This protein has a calculated molecular weight of 61.7 kDa. It has an apparent molecular weight of approximately 70 kDa by SDS-PAGE under reducing conditions due to glycosylation.



Ability of follistatin to neutralize Activin-mediated inhibition of MPC11 cell proliferation. The EC_{50} for this effect is typically 0.5-3 μg/ml in the presence of 10 ng/ml.

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY
Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 03/06/2026

CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM

PRODUCT INFORMATION



Description

Follistatin is a glycoprotein with roles in the reproductive system, as well as during development and in cell growth and differentiation.^{1,2} It is composed of an N-terminal region, three 10-cysteine follistatin domains (FSDs), and a C-terminal segment.³ Alternative splicing of *FST*, the gene encoding follistatin, generates two isoforms: FS-288 and FS-315, which differ in the length of the C-terminal region, and a third isoform, FS-303, is formed through proteolytic cleavage of FS-315.^{1,3,4} Follistatin is ubiquitously expressed and primarily secreted but is found in the cytosol of certain cells.^{2,4} It binds to proteins in the TGF- β superfamily, including activin, inhibin, and myostatin, and prevents them from interacting with their respective receptors. This inhibition of TGF- β family proteins leads to a wide variety of effects on inflammation, immunity, muscle formation, and cancer, among others.^{1,5,6} Overexpression of *FST* in breast cancer cells *in vitro* reduces cell growth rate, and *FST* expression in breast cancer is associated with increased relapse-free survival.⁶ *FST* gene therapy increases muscle mass and reduces knee inflammation in a mouse model of high-fat diet-induced obesity and surgically induced osteoarthritis.⁷ Cayman's Follistatin (human, recombinant) protein can be used for ELISA and binding assay applications. This protein is a disulfide-linked homodimer. The reduced monomer, composed of follistatin (amino acids 30-344) fused to human IgG1 Fc at its C-terminus, consists of 556 amino acids and has a calculated molecular weight of 61.7 kDa. As a result of glycosylation, the monomer migrates at approximately 70 kDa by SDS-PAGE under reducing conditions.

References

1. Zhang, L., Liu, K., Han, B., *et al.* The emerging role of follistatin under stresses and its implications in diseases. *Gene* **639**, 111-116 (2018).
2. Phillips, D.J. and de Kretser, D.M. Follistatin: A multifunctional regulatory protein. *Front. Neuroendocrinol.* **19**(4), 287-322 (1998).
3. Keutmann, H.T., Schneyer, A.L., and Sidis, Y. The role of follistatin domains in follistatin biological action. *Mol. Endocrinol.* **18**(1), 228-240 (2004).
4. Kumar, T.R. Too many follistatins: Racing inside and getting out of the cell. *Endocrinology* **146**(12), 5048-5051 (2005).
5. Hedger, M.P., Winnall, W.R., Phillips, D.J., *et al.* The regulation and functions of activin and follistatin in inflammation and immunity. *Vitam. Horm.* **85**, 255-297 (2011).
6. Zabkiewicz, C., Resaul, J., Hargest, R., *et al.* Increased expression of follistatin in breast cancer reduces invasiveness and clinically correlates with better survival. *Cancer Genom. Proteom.* **14**(4), 241-251 (2017).
7. Tang, R., Harasymowicz, N.S., Wu, C.-L., *et al.* Gene therapy for follistatin mitigates systemic metabolic inflammation and post-traumatic arthritis in high-fat diet-induced obesity. *Sci. Adv.* **6**(19), eaaz7492 (2020).

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM