



## Follistatin, human recombinant (rHuFST)

**Catalog No:** 87372  
**Lot No:** XXXXX  
**Source:** *E. coli*  
**Synonyms:** FST, FS, Activin-binding protein

### Background

Follistatin is a single-chain gonadal protein that specifically inhibits follicle-stimulating hormone release. The single FST gene encodes two isoforms, FST317 and FST344 containing 317 and 344 amino acids respectively, resulting from alternative splicing of the precursor mRNA. In a study in which 37 candidate genes were tested for linkage and association with polycystic ovary syndrome (PCOS) or hyperandrogenemia in 150 families, evidence was found for linkage between PCOS and follistatin. Follistatin binds directly to activin and functions as an activin antagonist. specific inhibitor of the biosynthesis and secretion of pituitary follicle stimulating hormone (fsh).

### Description

Follistatin human recombinant produced in *E. coli* is a single, non-glycosylated polypeptide chain containing 288 amino acids and having a total molecular mass of 31.5 kDa. FST is purified by proprietary chromatographic techniques.

### Physical Appearance

Sterile filtered white lyophilized (freeze-dried) powder.

### Formulation

Lyophilized from a concentrated (1 mg/ml) solution containing no additives.

### Solubility

It is recommended to reconstitute the lyophilized Follistatin in sterile 18 MΩ-cm H<sub>2</sub>O not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

### Stability

Lyophilized Follistatin, although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution FST should be stored at 4°C between 2-7 days and for future use below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

### Purity

Greater than 95.0% as determined by (a) Analysis by RP-HPLC, (b) Analysis by SDS-PAGE.

### Amino Acid Sequence

The sequence of the first five N-terminal amino acids was determined and was found to be Gly-Asn-Cys-Trp-Leu.

### Activity

The activity is determined by the ability to neutralize Activin A inhibitory effect of mouse MPC-11 cells. The expected ED50 is 100 - 400 ng/ml, corresponding to a specific activity of 2,500 - 10,000 units/mg in the presence of 7.5 ng/ml Activin A.

## CONTACT US TODAY

BIOMOL GmbH • Kieler Straße 303a • 22525 Hamburg • Germany • [info@biomol.de](mailto:info@biomol.de) • [www.biomol.de](http://www.biomol.de)

Fon: +49 (0)40-853 260 0 • TOLL FREE IN GERMANY: Fon: 0800-246 66 51



#### Usage

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Fon: +49 (0)40-853 260 0 • TOLL FREE IN GERMANY: Fon: 0800-246 66 51