Follistatin, mouse recombinant (rmFST)

Catalog No: 97455
Lot No: XXXXX
Source: *E. coli*
Synonyms: Follistatin, FST, FS, Activin-binding protein, AL033346.

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 mouse recombinant produced in *E. coli* is a single, non-glycosylated polypeptide chain containing 289 amino acids and having a total molecular mass of 31.6 kDa. FST is purified by proprietary chromatographic techniques.

Physical Appearance

Sterile filtered white lyophilized (freeze-dried) powder.

Formulation

The mouse Follistatin is lyophilized from 10 mM Na_2PO_4 and 50 mM NaCl, pH 7.5.

Solubility

It is recommended to reconstitute the lyophilized Follistatin in sterile 18 MΩ-cm H_2O 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 90.0% as determined by SDS-PAGE.

Amino Acid Sequence

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MGNCWLRQAK NGRCQVLTKT ELSKEECCST GRLSTSWTEE DVNDNTLFKW MIFNGGAPNC IPCKETCENV DCGPGKKCRM
NKKNKPRCVC APDCSNITWK GPVCGLDGKT YRNECALLKA RCKEQPELEV QYQGRCKKTC RDVFCPGSST CVVDQTNNAY
CVTCNRICPE PASSEQYLCG NDGVTYSSAC HLRKATCLLG RSIGLAYEGK CIKAKSCEDI QCTGGKKCLW DS
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Activity

The ED50, determined by the dose-dependent neutralization of 7.5 ng/ml human Activin-A on MCP-11 cells, is 0.13 - 0.19 µg/ml.

Usage

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