

Human Follistatin / FST Protein (His Tag)

Catalog Number: 10685-H08H



Sino Biological
Biological Solution Specialist

General Information

Gene Name Synonym:

FS

Protein Construction:

A DNA sequence encoding the human FST (NP_037541.1) (Met1-Asp329) was expressed with a polyhistidine tag at the C-terminus.

Source: Human

Expression Host: HEK293 Cells

QC Testing

Purity: > 85 % as determined by SDS-PAGE.

Bio Activity:

Measured by its ability to neutralize Activin-mediated inhibition on MPC11 cell proliferation. The ED_{50} for this effect is typically 5-40ng/mL.

Endotoxin:

< 1.0 EU per μ g protein as determined by the LAL method.

Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

Predicted N terminal: Gly 30

Molecular Mass:

The recombinant human FST consists 311 amino acids and predicts a molecular mass of 34.4 kDa.

Formulation:

Lyophilized from sterile PBS, pH 7.4.

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:

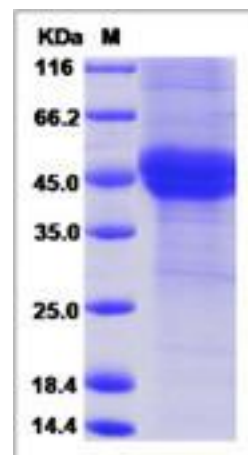
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

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 are expressed and subserve local regulatory roles in numerous extragonadal tissues, including brain, adrenal, bone marrow, and placenta but perhaps most notably in anterior pituitary-the classical target tissue for inhibin, the activin-follistatin system may play a key role in early embryogenesis. Follistatin binds directly to activin and functions as an activin antagonist. Specific inhibitor of the biosynthesis and secretion of pituitary follicle stimulating hormone follistatin is a binding protein to activin. Since activin binds to follistatin, it is imperative to determine the nature of the activin/follistatin binding complex.

References

1. Carroll RS, *et al.* (1989) Inhibin, activin, and follistatin: regulation of follicle-stimulating hormone messenger ribonucleic acid levels. *Mol Endocrinol.* 3(12): 1969-76.
2. Fainsod A, *et al.* (1997) The dorsalizing and neural inducing gene follistatin is an antagonist of BMP-4. *Mech Dev.* 63(1): 39-50.
3. Kaiser UB, *et al.* (1992) Follistatin gene expression in the pituitary: localization in gonadotropes and folliculostellate cells in diestrous rats. *Endocrinology.* 130(5): 3048-56.

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