

Synonym

Follistatin,FST,FS,FSP

Source

Human Follistatin Protein, Fc Tag(FON-H5256) is expressed from human 293 cells (HEK293). It contains AA Gly 30 - Asn 317 (Accession # <u>P19883-2</u>). Predicted N-terminus: Gly 30

Molecular Characterization

Follistatin(Gly 30 - Asn 317) P19883-2 P01857

This protein carries a human IgG1 Fc tag at the C-terminus.

The protein has a calculated MW of 58 kDa. The protein migrates as 65-80 kDa under reducing (R) condition, and 120-130 kDa when calibrated against <u>Star</u> <u>Ribbon Pre-stained Protein Marker</u> under non-reducing (NR) condition (SDS-PAGE) due to glycosylation.

Endotoxin

Less than 1.0 EU per μg by the LAL method.

Purity

>90% as determined by SDS-PAGE.

Formulation

Lyophilized from 0.22 μm filtered solution in PBS, pH7.4 with trehalose as protectant.

Contact us for customized product form or formulation.

Reconstitution

Please see Certificate of Analysis for specific instructions.

For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.

Storage

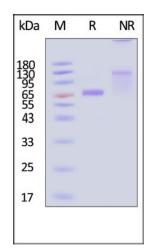
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

- -20°C to -70°C for 12 months in lyophilized state;
- 70° C for 3 months under sterile conditions after reconstitution.

SDS-PAGE



Human Follistatin Protein, Fc Tag on SDS-PAGE under reducing (R) and nonreducing (NR) conditions. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90% (With <u>Star Ribbon Pre-stained Protein</u> <u>Marker</u>).

Bioactivity-ELISA

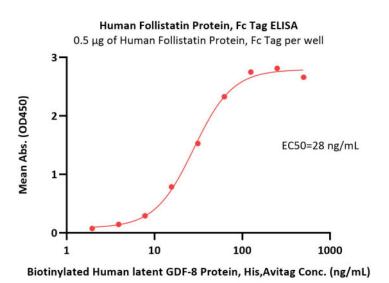


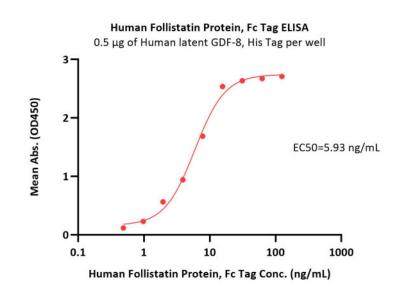
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Human Follistatin Protein, Fc Tag

Catalog # FON-H5256





Immobilized Human Follistatin Protein, Fc Tag (Cat. No. FON-H5256) at 5 μ g/mL (100 μ L/well) can bind Biotinylated Human latent GDF-8 Protein, His,Avitag with a linear range of 2-63 ng/mL (QC tested).

Immobilized Human latent GDF-8, His Tag (Cat. No. GD8-H5243) at 5 μ g/mL (100 μ L/well) can bind Human Follistatin Protein, Fc Tag (Cat. No. FON-H5256) with a linear range of 0.5-16 ng/mL (Routinely tested).

Background

Follistatin is also known as activin-binding protein, FST and FSH-suppressing protein (FSP), and is an secreted autocrine glycoprotein that is expressed in nearly all tissues of higher animals. Its primary function is the binding and bioneutralization of members of the TGF-β superfamily, with a particular focus on activin, a paracrine hormone. Currently there are three reported isoforms, FS-288, FS-300, and FS-315. Two, FS-288 and FS-315, are known to be created by alternative splicing of the primary mR transcript. FS-300 (porcine follistatin) is thought to be the product of posttranslational modification via truncation of the C-terminal domain from the primary amino-acid chain. The activin-binding protein follistatin is produced by folliculostellate (FS) cells of the anterior pituitary. FS cells make numerous contacts with the classical endocrine cells of the anterior pituitary including gonadotrophs. In the tissues activin has a strong role in cellular proliferation. In the blood, activin and follistatin are both known to be involved in the inflammatory response following tissue injury or pathogenic incursion. Follistatin is involved in the development of the embryo. It has inhibitory action on bone morphogenic proteins (BMPs); BMPs induce the ectoderm to become epidermal ectoderm. Inhibition of BMPs allows neuroectoderm to arise from ectoderm, a process which eventually forms the neural plate. Other inhibitors involved in this process are noggin and chordin. Follistatin and BMPs are also known to play a role in folliculogenesis within the ovary. A study has also shown that increased levels of follistatin, by leading to increased muscle mass of certain core muscular groups, can increase life expectancy in cases of spinal muscular atrophy (SMA) in animal models.

Clinical and Translational Updates





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