



Synonym

Activin A,INHBA

Source

Human Activin A Protein, premium grade(ACA-H5314) is expressed from CHO cells. It contains AA Gly 311 - Ser 426 (Accession # [P08476](#)).

Predicted N-terminus: Gly 311

It is produced under our rigorous quality control system that incorporates a comprehensive set of tests including sterility and endotoxin tests. Product performance is carefully validated and tested for compatibility for cell culture use or any other applications in the early preclinical stage. When ready to transition into later clinical phases, we also offer a custom GMP protein service that tailors to your needs. We will work with you to customize and develop a GMP-grade product in accordance with your requests that also meets the requirements for raw and ancillary materials use in cell manufacturing of cell-based therapies.

Molecular Characterization

**Activin A(Gly 311 - Ser 426)
P08476**

This protein carries no "tag".

The protein has a calculated MW of 13.0 kDa. The protein migrates as 13 kDa±3 kDa under reducing (R) condition, and 24 kDa when calibrated against [Star Ribbon Pre-stained Protein Marker](#) under non-reducing (NR) condition (SDS-PAGE) due to glycosylation.

Endotoxin

Less than 0.01 EU per µg by the LAL method.

Host Cell Protein

<0.5 ng/µg of protein tested by ELISA.

Host Cell DNA

<0.02 ng/µg of protein tested by qPCR.

Sterility

Negative

Mycoplasma

Negative.

Purity

>95% 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.

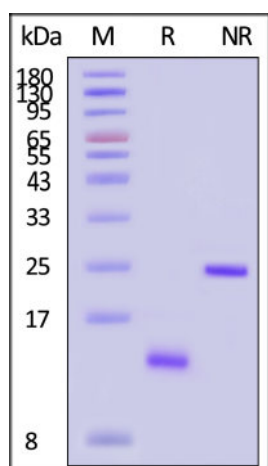
This product is stable after storage at:

- -20°C to -70°C for 24 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE

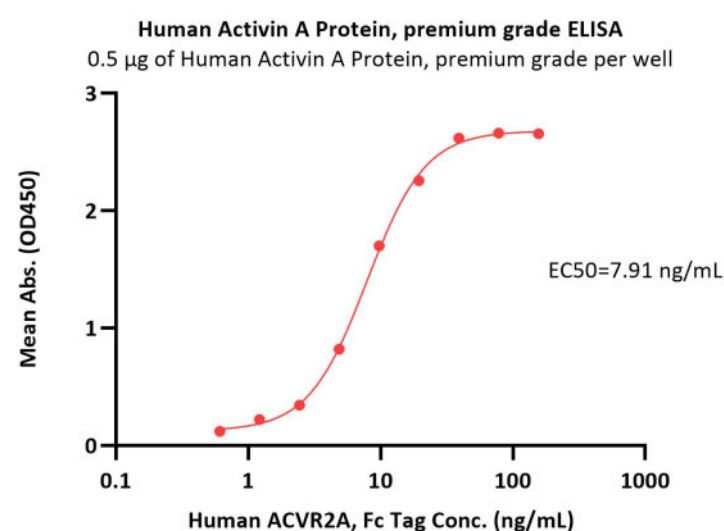
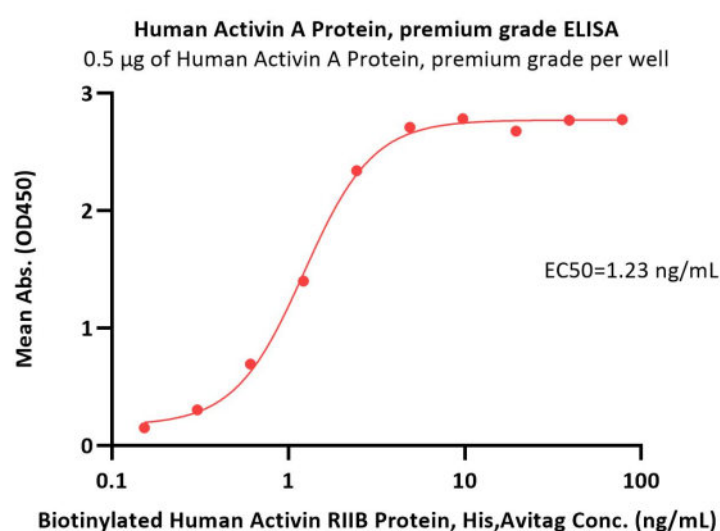
Discounts, Gifts,
and more!





Human Activin A Protein, premium grade on SDS-PAGE under reducing (R) and non-reducing (NR) conditions. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95% (With [Star Ribbon Pre-stained Protein Marker](#)).

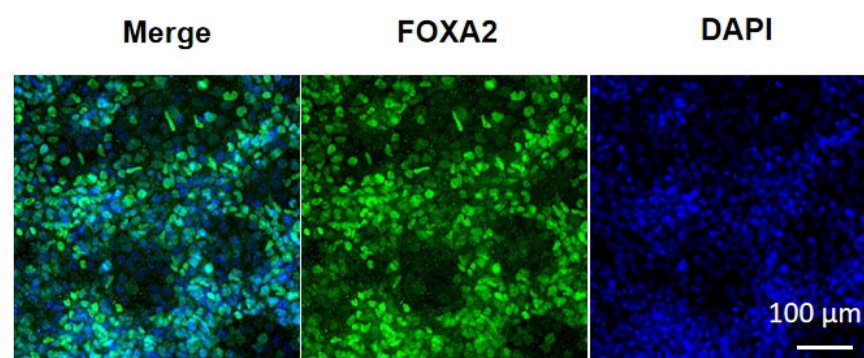
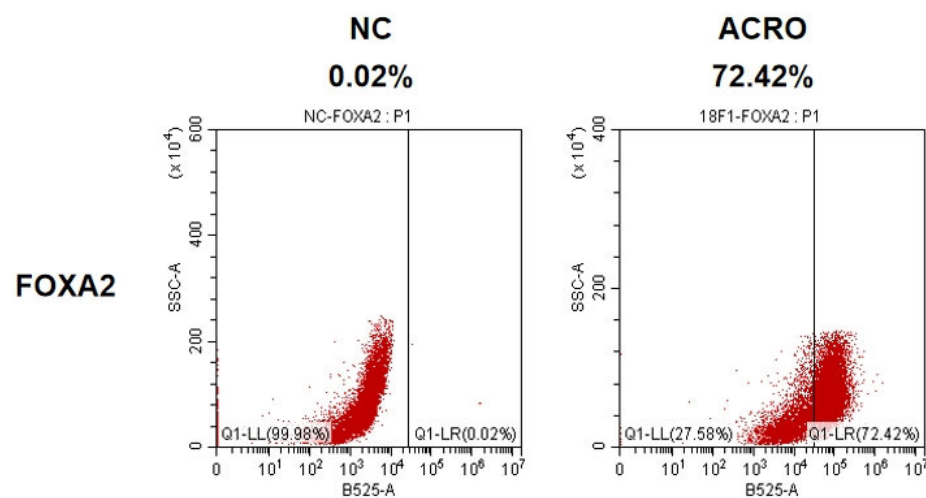
Bioactivity-ELISA



Immobilized Human Activin A Protein, premium grade (Cat. No. ACA-H5314) at 5 µg/mL (100 µL/well) can bind Biotinylated Human Activin RIIB Protein, His,Avitag (Cat. No. ACB-H82E3) with a linear range of 0.2-2 ng/mL (QC tested).

Immobilized Human Activin A Protein, premium grade (Cat. No. ACA-H5314) at 5 µg/mL (100 µL/well) can bind Human ACVR2A, Fc Tag (Cat. No. ACA-H5269) with a linear range of 0.6-20 ng/mL (Routinely tested).

Application Data



Human Activin A Protein, premium grade (Cat. No. ACA-H5314) could effectively induce the hiPSC to endoderm differentiation by FOXA2 expression in immunofluorescence and FACS.

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Background

Activin and inhibin are two closely related protein complexes that have almost directly opposite biological effects. Activin enhances FSH biosynthesis and secretion, and participates in the regulation of the menstrual cycle. Many other functions have been found to be exerted by activin, including roles in cell proliferation, differentiation, apoptosis, metabolism, homeostasis, immune response, wound repair, and endocrine function. Conversely inhibin down regulates FSH synthesis and inhibits FSH secretion. Activins are nonglycosylated homodimers or heterodimers of various β subunits (β A, β B, β C, and β E in mammals), while Inhibins are heterodimers of a unique α subunit and one of the β subunits. Activin A is a widely expressed homodimer of two β A chains. The β A subunit can also heterodimerize with a β B or β C subunit to form Activin AB and Activin AC, respectively. The 14 kDa mature human β A chain shares 100% amino acid sequence identity with bovine, feline, mouse, porcine, and rat β A.

Clinical and Translational Updates

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