

Human Latent Activin A Protein

Cat. No. ACV-HM101

Description

Source	Recombinant Human Latent Activin A Protein is expressed from HEK293 with His tag at the N-terminus. It contains Ser21-Ser426.
Accession	P08476
Molecular Weight	The protein has a predicted MW of 13.0 kDa (mature form) and 32.0 kDa (pro form). Due to glycosylation and interchain disulfide bond, the protein migrates to 15 kDa (mature form) and 40-50 kDa (pro form) under reduced (R) condition based on Tris-Bis PAGE result.
Endotoxin	Less than 1EU per µg by the LAL method.
Purity	> 95% as determined by Tris-Bis PAGE

Formulation and Storage

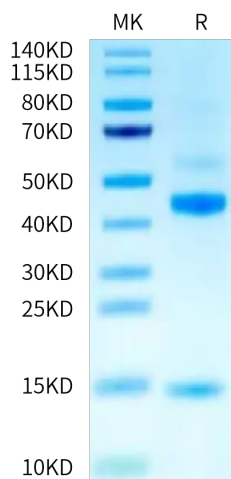
Formulation	Lyophilized from 0.22 µm filtered solution in PBS (pH 7.4). Normally 8% trehalose is added as protectant before lyophilization.
Reconstitution	Centrifuge the tube before opening. Reconstituting to a concentration more than 100 µg/ml is recommended. Dissolve the lyophilized protein in distilled water.
Storage	-20 to -80°C for 12 months as supplied from date of receipt. -80°C for 3-6 months after reconstitution. 2-8°C for 2-7 days after reconstitution. Recommend to aliquot the protein into smaller quantities for optimal storage. Please minimize freeze-thaw cycles.

Background

Activin-A, a member of the TGF-β superfamily, Extensive research over the past decades illuminated fundamental roles for activin-A in essential biologic processes, including embryonic development, stem cell maintenance and differentiation, haematopoiesis, cell proliferation and tissue fibrosis. Activin-A signals through two type I and two type II receptors which, upon ligand binding, activate their kinase activity, phosphorylate the SMAD2 and 3 intracellular signaling mediators that form a complex with SMAD4, translocate to the nucleus and activate or silence gene expression.

Assay Data

Tris-Bis PAGE

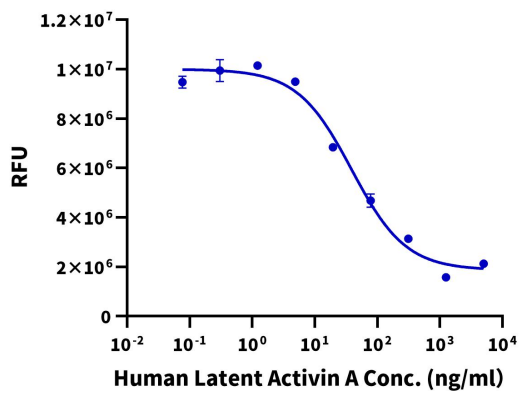


Human Latent Activin A on Tris-Bis PAGE under reduced (R) condition. The purity is greater than 95%.

Cell Based Assay

Assay Data

Recombinant Human Latent Activin A Activity



Measured by its ability to inhibit proliferation of MPC-11 cells. The ED50 for this effect is 30-40 ng/mL.