

# Human ACVR1B/Activin RIB Protein

Cat. No. ALK-HM204

## Description

<b>Source</b>	Recombinant Human ACVR1B/Activin RIB Protein is expressed from HEK293 with hFc tag at the C-terminus. It contains Ser24-Glu126.
<b>Accession</b>	P36896-1
<b>Molecular Weight</b>	The protein has a predicted MW of 37.36 kDa. Due to glycosylation, the protein migrates to 45-55 kDa based on Bis-Tris PAGE result.
<b>Endotoxin</b>	Less than 1EU per $\mu\text{g}$ by the LAL method.
<b>Purity</b>	>95% as determined by Bis-Tris PAGE >95% as determined by HPLC

## Formulation and Storage

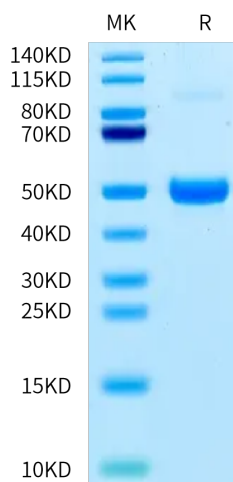
<b>Formulation</b>	Supplied as 0.22 $\mu\text{m}$ filtered solution in PBS (pH 7.4).
<b>Storage</b>	Valid for 12 months from date of receipt when stored at $-80^{\circ}\text{C}$ . Recommend to aliquot the protein into smaller quantities for optimal storage. Please minimize freeze-thaw cycles.

## Background

Activin A receptor type I (ACVR1) encodes for a bone morphogenetic protein type I receptor of the TGF $\beta$  receptor superfamily. It is involved in a wide variety of biological processes, including bone, heart, cartilage, nervous, and reproductive system development and regulation. Moreover, ACVR1 has been extensively studied for its causal role in fibrodysplasia ossificans progressiva (FOP), a rare genetic disorder characterised by progressive heterotopic ossification. ACVR1 is linked to different pathologies, including cardiac malformations and alterations in the reproductive system.

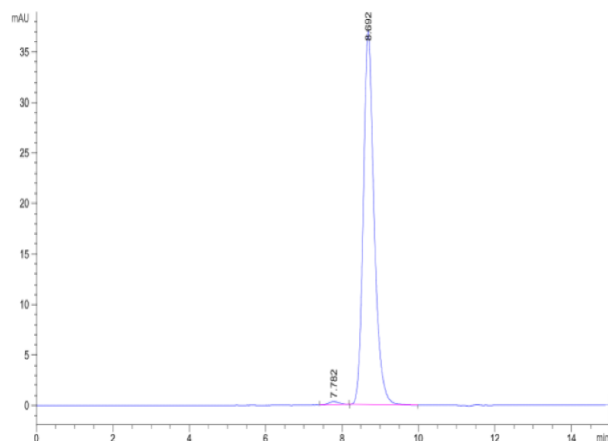
## Assay Data

### Bis-Tris PAGE



Human ACVR1B on Bis-Tris PAGE under reduced condition. The purity is greater than 95%.

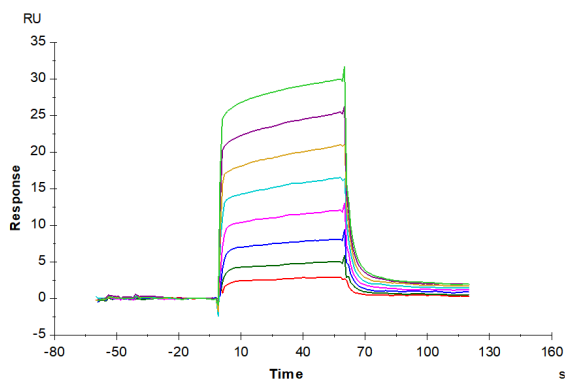
### SEC-HPLC



The purity of Human ACVR1B is greater than 95% as determined by SEC-HPLC.

Assay Data

SPR Data



Human ACVR1B, hFc Tag captured on CM5 Chip via Protein A can bind Human TDGF1, His Tag with an affinity constant of 0.16  $\mu$ M as determined in SPR assay (Biacore T200).