

ACVR2A active protein

ACVR2A Protein, Mouse, Recombinant (His Tag)

CATALOG #
AAA258185

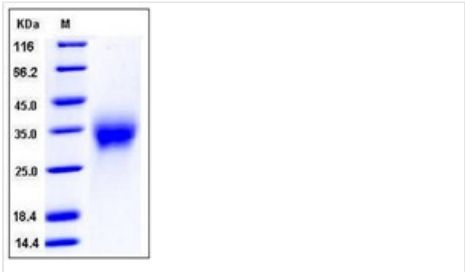
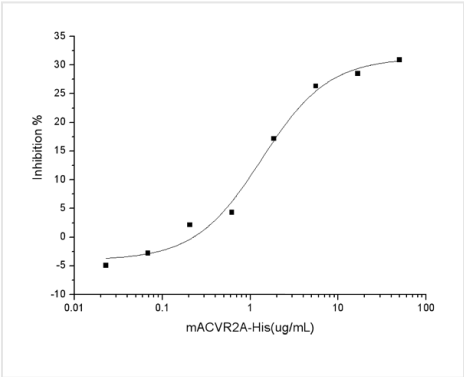
HOST
HEK293 Cells

PRODUCT SYNONYMS

ACVR2A; ACVR2A Protein; Mouse; Recombinant (His Tag); Mouse ACVR2A/ActrIIa Protein (His Tag); ActrIIa Protein; Acvr2 Protein; TactrII Protein; activin A receptor; type IIA; ACVR2A active protein

PRODUCT SPECIFICATIONS

Host	HEK293 Cells
Purity/Purification	≥97% as determined by SDS-PAGE ≥ 95% as determined by SEC-HPLC
Form/Format	Lyophilized from sterile PBS, pH7.4, 5% Trehalose, 5% Mannitol, 0.01% Tween-80
Sequence	Met1-Pro134
Source	Mouse
Activity	Measured by its ability to neutralize Activin-mediated inhibition on MPC11 cell proliferation. The ED50 for this effect is typically 0.6-3ug/mL in the presence of 10ng/mL Recombinant Human Activin A.
Endotoxin	<1.0EU per ug of the protein as determined by the LAL method
Predicted N Terminal	Ala 20
Tag	His
Protein Construction	A DNA sequence encoding the extracellular domain of mouse ACVR2A (NP_031422.3)(Met 1-Pro 134) was expressed, with a C-terminal polyhistidine tag.
Reconstitution	It is recommended that sterile water (400ul) be added to the vial to prepare a stock solution of 0.25mg/mL. Concentration is measured by UV-Vis.
Preparation and Storage	Store it under sterile conditions at -20 degree C to -80 degree C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage. Avoid repeated freeze-thaw cycles.



SDS-PAGE

Application Data
Measured by its ability to neutralize Activin-mediated inhibition on MPC11 cell proliferation. The ED50 for this effect is typically 0.6-3 ug/mL in the presence of 10 ng/ml Recombinant Human Activin A.

ADDITIONAL INFORMATION

Related Product Information for ACVR2A active protein	Background: ACVR2A and ACVR2B are two activin type II receptors. ACVR2A has been shown to interact with INHBA, SYNJ2BP and ACVR1B. The bovine ACVR2A gene encodes a protein of 513 amino acids which is highly homologous (approximately 98% identity) to the rat, mouse, and human ACVR2A proteins. Inactivation of ACVR2A is a common event in prostate cancer cells suggesting it may play an important role in the development of prostate cancer. The ACVR2A gene is a putative tumor suppressor gene that is frequently mutated in microsatellite-unstable colon cancers (MSI-H colon cancers). Frameshift mutation of ACVR2A may contribute to MSI-H colon tumorigenesis via disruption of alternate TGF-beta effector pathways.
References	Albertson RC, et al. (2005) Zebrafish acvr2a and acvr2b exhibit distinct roles in craniofacial development. Developmental dynamics 233(4): 1405-18.Chung H, et al. (2008) Mutation rates of TGFB2 and ACVR2 coding microsatellites in human cells with defective DNA mismatch repair. PloS one 3(10): e3463.Fitzpatrick E, et al. (2009) Genetic association of the activin A receptor gene (ACVR2A) and pre-eclampsia. Molecular human reproduction 15(3):195-204.Roten LT, et al. (2009) Association between the candidate susceptibility gene ACVR2A on chromosome 2q22 and pre-eclampsia in a large Norwegian population-based study (the HUNT study). EJHG. 17(2): 250-7.

NCBI AND UNIPROT INFORMATION

NCBI GI #	160358785
NCBI GeneID	11480
NCBI Accession #	NP_031422.3
NCBI GenBank Nucleotide #	NM_007396.4
UniProt Accession #	P27038
Molecular Weight	The secreted recombinant mouse ACVR2A comprises 126 amino acids and has a calculated molecular mass of 14.8 kDa. As a result of glycosylation, the recombinant protein migrates as an approximately 35 kDa band in SDS-PAGE under reducing conditions.
NCBI Official Full Name	activin receptor type-2A
NCBI Official Synonym Full Names	activin receptor IIA
NCBI Official Symbol	Acvr2a
NCBI Official Synonym Symbols	Acvr2; ActrlIa; TactrlI
NCBI Protein Information	activin receptor type-2A
UniProt Protein Name	Activin receptor type-2A

UniProt Gene Name	Acvr2a
UniProt Synonym Gene Names	Acvr2; ACTR-IIA
UniProt Entry Name	AVR2A_MOUSE

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/hek293-cells-active-protein/acvr2a/258185>