ACVR2A active protein

ACVR2A Protein, Mouse, Recombinant (His & hFc Tag)

CATALOG #	HOST
AAA258184	**HEK293 Cells**

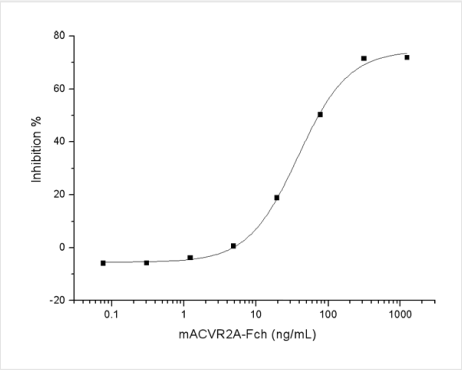
PRODUCT SYNONYMS

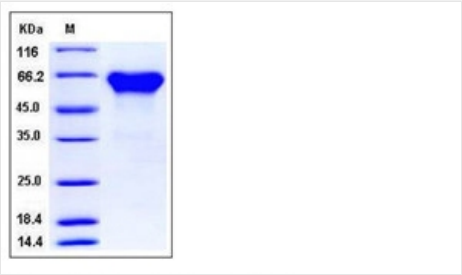
ACVR2A; ACVR2A Protein; Mouse; Recombinant (His & hFc Tag); Mouse ACVR2A/ActrIIa Protein (His & Fc Tag); ActrIIa Protein; Acvr2 Protein; TactrII Protein; activin A receptor; type IIA; ACVR2A active protein

PRODUCT SPECIFICATIONS

Host	HEK293 Cells
Purity/Purification	>97% as determined by SDS-PAGE
Form/Format	Lyophilized from sterile PBS, pH7.4. Normally 5%-8% trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Please refer to the specific buffer information in the hard copy of CoA.
Sequence	Met1-Pro13 4
Species	Mouse
Activity	Measured by its ability to neutralize Activin-mediated inhibition on MPC11 cell proliferation. The ED50 for this effect is typically 20-60ng/mL in the presence of 10ng/mL recombinant Activin A.
Endotoxin	<1.0EU per ug of the protein as determined by the LAL method
Predicted N Terminal	Ala 20
Tag	C-human IgG1-Fc & His
Protein Construction	A DNA sequence encoding the extracellular domain of mouse ACVR2A (NP_031422.3)(Met 1-Pro 134) was fused with the C-terminal polyhistidine-tagged Fc region of human IgG1 at the C-terminus.
Reconstitution	A hardcopy of COA with reconstitution instruction is sent along with the products. Please refer to it for detailed information.
Preparation and Storage	Samples are stable for up to twelve months from date of receipt at -20 degree C to -80 degree C. Store it under sterile conditions at -20 degree C to -80 degree C. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles. In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice.

IMAGES





SDS-PAGE

Application Data

Measured by its ability to neutralize Activin-mediated inhibition on MPC11 cell proliferation. The ED50 for this effect is typically 20-60 ng/mL in the presence of 10 ng/mL recombinant 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 TGFBR2 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	57,890 Da
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; ActrIIa; TactrII
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://www.aaabiotech.com/hek293-active-protein/acvr2a/258184