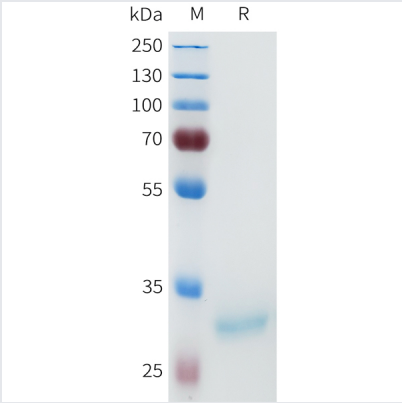
ACVR2A Human Recombinant Protein

PRODUCT OVERVIEW

Product Name	ACVR2A, Recombinant Protein
Full Product Name	Human ACVR2A (68-88) Protein, mFc Tag
Product Gene Name	ACVR2A recombinant protein
Product Synonym Names	ACVR2; ACTRII; Recombinant human ACVR2A (68-88) Protein with C-terminal mouse Fc tag
Sequence	ACVR2A (Ser68-Arg 88) mFc (Pro99-Lys 330)
Host	HEK293
Form/Format	Lyophilized from sterile PBS, pH 7.4. Normally 5% – 8% trehalose is added as protectants before lyophilization. Please see Certificate of Analysis for specific instructions of reconstitution.
Purity/Purification	The purity of the protein is greater than 95% as determined by SDS-PAGE and Coomassie blue staining.
Preparation and Storage	Store at -20 degree C to -80 degree C for 12 months in lyophilized form. After reconstitution, if not intended for use within a month, aliquot and store at -80 degree C (Avoid repeated freezing and thawing). Lyophilized proteins are shipped at ambient temperature.
Molecular Weight	57,848 Da
OMIM	102581
3D Structure	ModBase 3D Structure for P27037
Tag	C-Mouse Fc
Product Categories/Family for ACVR2A recombinant protein	ECD Proteins
Related Product Information for ACVR2A recombinant protein	This gene encodes a receptor that mediates the functions of activins, which are members of the transforming growth factor-beta (TGF-beta) superfamily involved in diverse biological processes. The encoded protein is a transmembrane serine-threonine kinase receptor which mediates signaling by forming heterodimeric complexes with various combinations of type I and type II receptors and ligands in a cell-specific manner. The encoded type II receptor is primarily involved in ligand-binding and includes an extracellular ligand-binding domain, a transmembrane domain and a cytoplasmic serine-threonine kinase domain. This gene may be associated with susceptibility to preeclampsia, a pregnancy-related disease which can result in maternal and fetal morbidity and mortality. Alternative splicing results in multiple transcript variants of this gene. [provided by RefSeq, Jun 2013]
Other Notes	Small volumes of ACVR2A recombinant protein vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for ACVR2A purchase	MBS1884137 is a recombinant protein targeting ACVR2A. Also known as Human ACVR2A (68-88) Protein, mFc Tag. Host: HEK293.



SDS-PAGE of ACVR2A recombinant protein
Figure 1. Human ACVR2A(68-88) Protein, mFc Tag on SDS-PAGE under reducing condition.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for ACVR2A. It may not necessarily be applicable to this product.

NCBI GI #	178050
NCBI GeneID	92
NCBI Accession #	AAA35504.1
UniProt Primary Accession #	P27037
UniProt Secondary Accession #	Q53TH4; Q6NWV2; Q92474; B2RAB8; B4DWQ2; D3DP85
UniProt Related Accession #	P27037
NCBI Official Full Name	activin type II receptor
NCBI Official Synonym Full Names	activin A receptor, type IIA
NCBI Official Symbol	ACVR2A
NCBI Official Synonym Symbols	ACVR2; ACTRII
UniProt Protein Name	Activin receptor type-2A
UniProt Synonym Protein Names	Activin receptor type IIA
Protein Family	Activin receptor
UniProt Gene Name	ACVR2A
UniProt Synonym Gene Names	ACVR2; ACTR-IIA; ACTRIIA
UniProt Entry Name	AVR2A_HUMAN
NCBI Protein Information	activin receptor type-2A

UniProt Comments for ACVR2A	ACVR2A: a tyrosine-kinase like receptor kinase of the STKR family. The holoreceptor receptor is a heteromeric complex of receptor serine kinases which include at least two type I (I and IB) and two type II (II and IIB) receptors. Each is composed of a ligand-binding extracellular domain with cysteine-rich region, a transmembrane domain, and a cytoplasmic kinase domain. Type II receptors are required for binding ligands and for expression of type I receptors. Type I and II receptors form a stable complex after ligand binding, resulting in phosphorylation of type I receptors by type II receptors. Type II receptor kinases are apparently constitutively active. Protein type: EC 2.7.11.30; Protein kinase, TKL; Kinase, protein; Motility/polarity/chemotaxis; Membrane protein, integral; Protein kinase, Ser/Thr (receptor); TKL group; STKR family; Type2 subfamily Chromosomal Location of Human Ortholog: 2q22.3 Cellular Component: cell surface; integral to plasma membrane; cytoplasm; plasma membrane; receptor complex Molecular Function: activin receptor activity; protein self-association; metal ion binding; transmembrane receptor protein serine/threonine kinase activity; PDZ domain binding; transforming growth factor beta receptor activity; protein serine/threonine kinase activity; protein binding; growth factor binding; activin binding; coreceptor activity; ATP binding; receptor signaling protein serine/threonine kinase activity Biological Process: positive regulation of erythrocyte differentiation; embryonic skeletal development; regulation of BMP signaling pathway; activin receptor signaling pathway; Sertoli cell proliferation; gastrulation with mouth forming second; positive regulation of bone mineralization; protein amino acid phosphorylation; BMP signaling pathway; anterior/posterior pattern formation; positive regulation of osteoblast differentiation; positive regulation of activin receptor signaling pathway; transmembrane receptor protein serine/threonine kinase signaling pathway; mesoderm development; spermatogenesis; regulation of nitric-oxide synthase activity; sperm ejaculation; positive regulation of protein amino acid phosphorylation; determination of left/right symmetry; penile erection
Research Articles on ACVR2A	**1.** For ACVR2A SNPs (rs10497025, rs1128919, rs13430086), no statistically significant difference was found between preeclampsia and control groups in terms of genotype and allele frequencies.
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