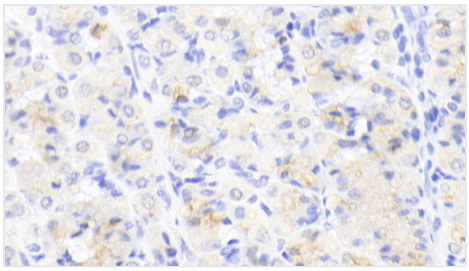
Activin A Receptor Type II A (ACVR2A) Antibody – Mouse Monoclonal

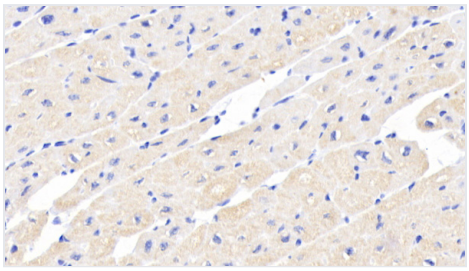
PRODUCT OVERVIEW

Product Name	Activin A Receptor Type II A (ACVR2A), Monoclonal Antibody
Full Product Name	Monoclonal Antibody to Activin A Receptor Type II A (ACVR2A)
Product Gene Name	anti-ACVR2A antibody
Product Synonym Names	ACVR2A/Activin A Receptor Type II A; ACVR2A; ACTRII; ACTRII; ACVR2
Clonality	Monoclonal
Isotype	IgG1 Kappa
Clone Number	C7
Host	Mouse
Species Reactivity	Human, Pig
Form/Format	Liquid; 0.01M PBS, pH7.4, containing 0.05% Proclin300, 50% glycerol.
Purity/Purification	Protein A + Protein G affinity chromatography
Concentration	1mg/mL (lot specific)
Specificity	The antibody is a mouse monoclonal antibody raised against ACVR2A. It has been selected for its ability to recognize ACVR2A in immunohistochemical staining and western blotting.
Preparation and Storage	Store at 2 degree C to 8 degree C for frequent use, 20 degree C for 24 months The thermal stability is described by the loss rate. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37 degree C for 48h, and no obvious degradation and precipitation were observed. The loss rate is less than 5% within the expiration date under appropriate storage condition.
Matching Pairs	Unconjugated Antibody: ACVR2A Clone #C7 (MBS2139115) APC-CY7 Conjugated Antibody: ACVR2A Clone #C7 (MBS2134758)
Matching Pairs	Unconjugated Antibody: ACVR2A Clone #C7 (MBS2139115) PE Conjugated Antibody: ACVR2A Clone #C7 (MBS2134763)
Matching Pairs	Unconjugated Antibody: ACVR2A Clone #C7 (MBS2139115) APC Conjugated Antibody: ACVR2A Clone #C7 (MBS2134768)
Matching Pairs	Unconjugated Antibody: ACVR2A Clone #C7 (MBS2139115) Cy3 Conjugated Antibody: ACVR2A Clone #C7 (MBS2134773)
Matching Pairs	Unconjugated Antibody: ACVR2A Clone #C7 (MBS2139115) Biotin Conjugated Antibody: ACVR2A Clone #C7 (MBS2134778)
Matching Pairs	Unconjugated Antibody: ACVR2A Clone #C7 (MBS2139115) FITC Conjugated Antibody: ACVR2A Clone #C7 (MBS2134783)
Matching Pairs	Unconjugated Antibody: ACVR2A Clone #C7 (MBS2139115) HRP Conjugated Antibody: ACVR2A Clone #C7 (MBS2134788)
Molecular Weight	57,848 Da
OMIM	102581
3D Structure	ModBase 3D Structure for P27037
Supply Chain Verification	Manufactured in a lab with traceable raw materials. Bulk orders can typically be prepared to the customer's specifications, please inquire.

Immunogen Type	Prokaryotic Recombinant proteins/RP
Sequence of Immunogen	Ala20~Pro135
Conjugation	Unconjugated
Product Categories/Family for anti-ACVR2A antibody	Signal transduction; Endocrinology; Hormone metabolism; Primary
ISO Certification	Manufactured in an ISO 9001:2015 and ISO 13485:2016 Certified Laboratory.
Applications Tested/Suitable for anti-ACVR2A antibody	Western Blot (WB), Immunohistochemistry (IHC), Immunocytochemistry (ICC), Immunoprecipitation (IP)
Application Notes for anti-ACVR2A antibody	WB: 0.52ug/mL IHC: 520ug/mL ICC: 520ug/mL
Related Product Information for anti-ACVR2A antibody	MBS2139115 is an antibody targeting ACVR2A. Also known as Monoclonal Antibody to Activin A Receptor Type II A (ACVR2A). Reactive in Human, Pig. Host: Mouse.
Other Notes	Small volumes of anti-ACVR2A antibody 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.



Immunohistochemistry (IHC) of anti-ACVR2A antibody
DAB staining on IHCP; Sample: Human Stomach Tissue; Primary Ab: 20ug/ml Mouse AntiHuman ACVR2A Antibody Second Ab: 2ug/mL HRPLinked Caprine AntiMouse IgG Polyclonal Antibody (Catalog: SAA544Mu19)



Immunohistochemistry (IHC) of anti-ACVR2A antibody
DAB staining on IHCP;Sample: Human Cardiac Muscle Tissue; Primary Ab: 20ug/ml Mouse AntiHuman ACVR2A AntibodySecond Ab: 2ug/mL HRPLinked Caprine AntiMouse IgG Polyclonal Antibody(Catalog: SAA544Mu19)

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
NCBI Summary for ACVR2A	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]
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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