# ACVR2A Antibody – Monoclonal

## PRODUCT OVERVIEW

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| **Product Name** | ACVR2A & ACVR2B, Monoclonal Antibody |
| **Full Product Name** | Anti-Human ACVR2A & ACVR2B Antibody (SAA0125) |
| **Product Gene Name** | anti-ACVR2A antibody |
| **Product Synonym Gene Name** | ACVR2B |
| **Product Synonym Names** | ACVR2; ACTRIIA; ACTR-IIA; Activin receptor type IIA; ACVR2A; Activin receptor type-2A; ACTR-IIB; Activin receptor type IIB; Activin receptor type-2B; ACVR2B |
| **Clonality** | Monoclonal |
| **Isotype** | IgG1, lambda |
| **Clone Number** | SAA0125 |
| **Species Reactivity** | Human |
| **Form/Format** | Liquid; 0.01M PBS, pH 7.4 |
| **Purity/Purification** | >95% by SDS-PAGE; Protein A or G purified from cell culture supernatant. |
| **Concentration** | 1.99 mg/ml (lot specific) |
| **Preparation and Storage** | Use a manual defrost freezer and avoid repeated freeze-thaw cycles. Store at 4 degrees C short term (1-2 weeks). Store at -20 degrees C 12 months. Store at -80 degrees C long term. |
| **OMIM** | 102581 |
| **3D Structure** | ModBase 3D Structure for P27037 |
| **Host Species** | Human |
| **Conjugation** | Unconjugated |
| **Product Categories/Family for anti-ACVR2A antibody** | Super-Affinity Antibodies |
| **ISO Certification** | Manufactured in an ISO 9001:2015 Certified Laboratory. |
| **Applications Tested/Suitable for anti-ACVR2A antibody** | Flow Cytometry (FC) |
| **Related Product Information for anti-ACVR2A antibody** | MBS1564335 is an antibody targeting ACVR2A. Also known as Anti-Human ACVR2A & ACVR2B Antibody (SAA0125). Reactive in Human. |
| **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. |

## ADDITIONAL DETAILS

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

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| **NCBI GI #** | 178050 |
| **NCBI GeneID** | 92 |
| **NCBI Accession #** | AAA35504.1 |

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| **UniProt Primary Accession #** | P27037 |
| **UniProt Secondary Accession #** | Q13705 |
| **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.<br><br>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<br><br>Chromosomal Location of Human Ortholog: 2q22.3<br><br>Cellular Component: cell surface; integral to plasma membrane; cytoplasm; plasma membrane; receptor complex<br><br>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<br><br>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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