

## Rabbit anti-Human ACVR1 Polyclonal Antibody | anti-ACVR1 antibody

Anti-ACVR1 Antibody, Rabbit Polyclonal

|                               |                       |                            |                                                    |
|-------------------------------|-----------------------|----------------------------|----------------------------------------------------|
| CATALOG #<br><b>AAA254732</b> | HOST<br><b>Rabbit</b> | REACTIVITY<br><b>Human</b> | APPLICATIONS<br><b>Immunohistochemistry, ELISA</b> |
|-------------------------------|-----------------------|----------------------------|----------------------------------------------------|

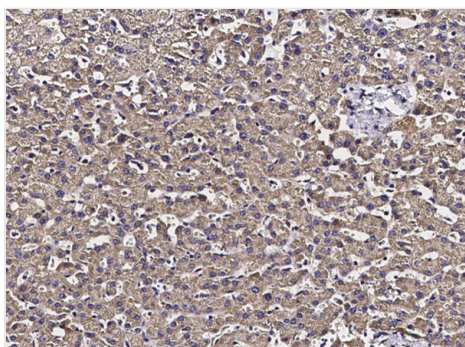
### PRODUCT SYNONYMS

ACVR1; Polyclonal Antibody; Anti-ACVR1 Antibody; Rabbit Polyclonal; ALK-2/ACVR1 Antibody; Rabbit PAb; Antigen Affinity Purified; activin A receptor; type I; Anti-ACVRL1 Antibody; Anti-ACVR1A Antibody; Anti-ACVRLK2 Antibody; Anti-ALK2 Antibody; Anti-FOP Antibody; Anti-SKR1 Antibody; Anti-TSRI Antibody; anti-ACVR1 antibody

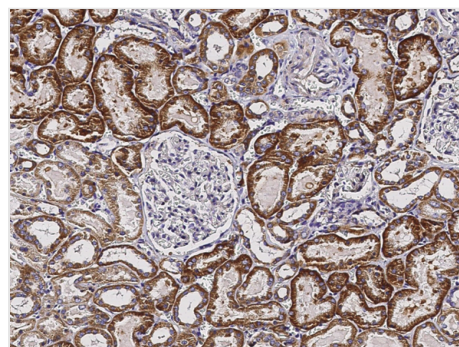
### PRODUCT SPECIFICATIONS

|                                                 |                                                                                                                                                                                                                                                                       |
|-------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Host                                            | Rabbit                                                                                                                                                                                                                                                                |
| Reactivity                                      | Human                                                                                                                                                                                                                                                                 |
| Clonality                                       | Polyclonal                                                                                                                                                                                                                                                            |
| Isotype                                         | Rabbit IgG                                                                                                                                                                                                                                                            |
| Specificity                                     | Human ALK-2/ACVR1                                                                                                                                                                                                                                                     |
| Purity/Purification                             | Protein A & Antigen Affinity                                                                                                                                                                                                                                          |
| Form/Format                                     | Liquid; 0.2um filtered solution in PBS                                                                                                                                                                                                                                |
| Applicable Applications for anti-ACVR1 antibody | IHC (Immunohistochemistry), ELISA                                                                                                                                                                                                                                     |
| Immunogen                                       | Recombinant Human ALK-2/ACVR1 protein                                                                                                                                                                                                                                 |
| Conjugation                                     | Unconjugated                                                                                                                                                                                                                                                          |
| Preparation                                     | Produced in rabbits immunized with purified, recombinant Human ALK-2/ACVR1 (rh ALK-2/ACVR1). ALK-2/ACVR1 specific IgG was purified by Human ALK-2/ACVR1 affinity chromatography.                                                                                      |
| Preparation and Storage                         | This antibody can be stored at 2-8 degree C for one month without detectable loss of activity. Antibody products are stable for twelve months from date of receipt when stored at -20 degree C to -80 degree C. Preservative-Free. Avoid repeated freeze-thaw cycles. |

### IMAGES


**IHC (Immunohistochemistry)**

Immunochemical staining of human ALK2 in human liver with rabbit polyclonal antibody (1:1000, formalin-fixed paraffin embedded sections).


**IHC (Immunohistochemistry)**

Immunochemical staining of human ALK2 in human kidney with rabbit polyclonal antibody (1:1000, formalin-fixed paraffin embedded sections).

ADDITIONAL INFORMATION

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|-----------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Related Product Information for anti-ACVR1 antibody | ALK-2, also termed as ACVR1, was initially identified as an activin type I receptor because of its ability to bind activin in concert with ActRII or ActRIIB. ALK-2 is also identified as a BMP type I receptor. It has been demonstrated that ALK-2 forms complex with either the BMP-2/7-bound BMPR-II or ACVR2A /ACVR2B. ALK-1 and ALK-2 presenting in the yeast Saccharomyces cerevisiae are two haspin homologues. Both ALK-1 and ALK-2 exhibit a weak auto-kinase activity in vitro, and are phosphoproteins in vivo. ALK-1 and ALK-2 levels peak in mitosis and late-S/G2. Control of protein stability plays a major role in ALK-2 regulation. The half-life of ALK-2 is particularly short in G1. Overexpression of ALK-2, but not of ALK-1, causes a mitotic arrest, which is correlated to the kinase activity of the protein. This suggests a role for ALK-2 in the control of mitosis. Endoglin is phosphorylated on cytosolic domain threonine residues by the TGF-beta type I receptors ALK-2 and ALK-5 in prostate cancer cells. Endoglin did not inhibit cell migration in the presence of constitutively active ALK-2. Defects in ALK-2 are a cause of fibrodysplasia ossificans progressiva (FOP). |
| References                                          | Armes NA, et al. (1997) The ALK-2 and ALK-4 activin receptors transduce distinct mesoderm-inducing signals during early Xenopus development but do not co-operate to establish thresholds. Development 124(19): 3797-804.Armes NA, et al. (1999) A short loop on the ALK-2 and ALK-4 activin receptors regulates signaling specificity but cannot account for all their effects on early Xenopus development. J Biol Chem. 274(12):7929-35.Kawai S, et al. (2000) Mouse smad8 phosphorylation downstream of BMP receptors ALK-2, ALK-3, and ALK-6 induces its association with Smad4 and transcriptional activity.Biochem Biophys Res Commun. 271(3):682-7.Deng Y, et al. (2009) Efficient highly selective synthesis of methyl 2-(ethynyl)alk-2(E)-enoates and 2-(1'-chlorovinyl)alk-2(Z)-enoates from 2-(methoxycarbonyl)-2, 3-allenols. Organic letters 11(10):2169-72.                                                                                                                                                                                                                                                                                                                                            |

NCBI AND UNIPROT INFORMATION

|                                  |                                               |
|----------------------------------|-----------------------------------------------|
| NCBI GI #                        | 4501895                                       |
| NCBI GeneID                      | 90                                            |
| NCBI Accession #                 | NP_001096                                     |
| NCBI GenBank Nucleotide #        | NP_001096.1                                   |
| UniProt Accession #              | Q04771                                        |
| NCBI Official Full Name          | activin receptor type-1                       |
| NCBI Official Synonym Full Names | activin A receptor type 1                     |
| NCBI Official Symbol             | ACVR1                                         |
| NCBI Official Synonym Symbols    | FOP; ALK2; SKR1; TSRI; ACTRI; ACVR1A; ACVRLK2 |
| NCBI Protein Information         | activin receptor type-1                       |
| UniProt Protein Name             | Activin receptor type-1                       |
| UniProt Gene Name                | ACVR1                                         |
| UniProt Synonym Gene Names       | ACVRLK2; ACTRI-I; ALK-2; SKR1; TSR-I          |
| UniProt Entry Name               | ACVR1_HUMAN                                   |

**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.