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ACVR1 Antibody
Rabbit mAb
Catalog # AP92603

Specification

ACVR1 Antibody - Product Information

Application	**WB, IP**
Primary Accession	Q04771
Reactivity	**Rat**
Clonality	**Monoclonal**

Other Names
ACTRI; Acvr1; ACVR1A; ACVRLK2; ALK2; FOP; SKR1; TSRI;

Isotype	**Rabbit IgG**
Host	**Rabbit**
Calculated MW	**57153 Da**

ACVR1 Antibody - Additional Information

Dilution	**WB~~1:1000** **IP~~N/A**
Purification	**Affinity-chromatography**
Immunogen	**A synthesized peptide derived from human ACVR1**
Description	**On ligand binding, forms a receptor complex consisting of two type II and two type I transmembrane serine/threonine kinases. Type II receptors phosphorylate and activate type I receptors which autophosphorylate, then bind and activate SMAD transcriptional regulators.**
Storage Condition and Buffer	**Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.**

ACVR1 Antibody - Protein Information

Name ACVR1

Synonyms ACVRLK2

Function
Bone morphogenetic protein (BMP) type I receptor that is involved in a wide variety of biological processes, including bone, heart, cartilage, nervous, and reproductive system development and regulation (PubMed:20628059, PubMed:22977237). As a type I receptor, forms heterotetrameric receptor

complexes with the type II receptors AMHR2, ACVR2A or ACVR2B (PubMed:17911401). Upon binding of ligands such as BMP7 or GDF2/BMP9 to the heteromeric complexes, type II receptors transphosphorylate ACVR1 intracellular domain (PubMed:25354296). In turn, ACVR1 kinase domain is activated and subsequently phosphorylates SMAD1/5/8 proteins that transduce the signal (PubMed:9748228). In addition to its role in mediating BMP pathway-specific signaling, suppresses TGFbeta/activin pathway signaling by interfering with the binding of activin to its type II receptor (PubMed:17911401). Besides canonical SMAD signaling, can activate non-canonical pathways such as p38 mitogen-activated protein kinases/MAPKs (By similarity). May promote the expression of HAMP, potentially via its interaction with BMP6 (By similarity).

Cellular Location
Membrane; Single-pass type I membrane protein.

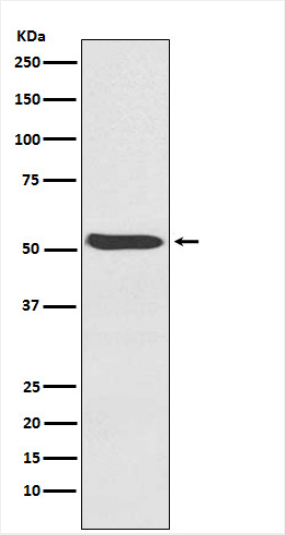
Tissue Location
Expressed in normal parenchymal cells, endothelial cells, fibroblasts and tumor-derived epithelial cells

ACVR1 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

ACVR1 Antibody - Images



Western blot analysis of ACVR1 expression in Human fetal heart lysate.