

ACVR1 Rabbit mAb

Catalog # AP78484

Product Information

Application WB, IP **Primary Accession** Q04771

Reactivity Rat, Human, Mouse

Host Rabbit

Clonality Monoclonal Antibody

Isotype IgG

Conjugate Unconjugated

Immunogen A synthesized peptide derived from human ACVR1

Purification Affinity Purified

Calculated MW 57153

Additional Information

Gene ID 90

Other Names ACVR1

Dilution WB~~1/500-1/1000 IP~~N/A

Format Liquid in 10mM PBS, pH 7.4, 150mM sodium chloride, 0.05% BSA, 0.02%

sodium azide and 50% glycerol.

Storage Store at 4°C short term. Aliquot and store at -20°C long term. Avoid

freeze/thaw cycles.

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:<u>17911401</u>). Upon binding of ligands such as BMP7 or GDF2/BMP9 to the heteromeric complexes, type II receptors transphosphorylate ACVR1 intracellular domain (PubMed:<u>25354296</u>). In turn, ACVR1 kinase domain is activated and subsequently phosphorylates SMAD1/5/8 proteins that transduce the signal (PubMed:<u>9748228</u>). 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

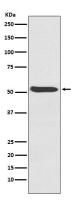
(PubMed:<u>17911401</u>). Besides canonical SMAD signaling, can activate non-canonical pathways such as p38 mitogen-activated protein kinases/MAPKs (By similarity). May promote the expression of HAMP, potentially via its interaction with BMP6 (By similarity).

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

Tissue Location Expressed in normal parenchymal cells, endothelial cells, fibroblasts and

tumor-derived epithelial cells

Images



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