

#### Anti-ACVR1 / ALK-2 Reference Antibody (DS-6016a) Recombinant Antibody Catalog # APR10588

## Specification

# Anti-ACVR1 / ALK-2 Reference Antibody (DS-6016a) - Product Information

Application Primary Accession Reactivity Clonality Isotype Calculated MW FC, Kinetics, Animal Model <u>004771</u> Human Monoclonal IgG1 145 KDa

## Anti-ACVR1 / ALK-2 Reference Antibody (DS-6016a) - Additional Information

Target/Specificity ACVR1 / ALK-2

**Endotoxin** < 0.001EU/ μg,determined by LAL method.

Conjugation Unconjugated

Expression system CHO Cell

Format

Purified monoclonal antibody supplied in PBS, pH6.0, without preservative. This antibody is purified through a protein A column.

# Anti-ACVR1 / ALK-2 Reference Antibody (DS-6016a) - 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:<a href="http://www.uniprot.org/citations/20628059" target="\_blank">20628059</a>, PubMed:<a href="http://www.uniprot.org/citations/20977237" target="\_blank">20628059</a>). As a type I receptor, forms heterotetrameric receptor complexes with the type II receptors AMHR2, ACVR2A or ACVR2B (PubMed:<a href="http://www.uniprot.org/citations/17911401" target="\_blank">17911401</a>). Upon binding of ligands such as BMP7 or GDF2/BMP9 to the heteromeric complexes, type II receptors transphosphorylate ACVR1 intracellular domain (PubMed:<a href="http://www.uniprot.org/citations/25354296" target=" blank">25354296</a>). In turn,



ACVR1 kinase domain is activated and subsequently phosphorylates SMAD1/5/8 proteins that transduce the signal (PubMed:<a href="http://www.uniprot.org/citations/9748228" target="\_blank">9748228</a>). 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:<a href="http://www.uniprot.org/citations/17911401" target="\_blank">17911401</a>). 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

## Anti-ACVR1 / ALK-2 Reference Antibody (DS-6016a) - Protocols

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

- Western Blot
- <u>Blocking Peptides</u>
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

### Anti-ACVR1 / ALK-2 Reference Antibody (DS-6016a) - Images



Anti-ACVR1 / ALK-2 Reference Antibody (DS-6016a) on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90%





The purity of Anti-ACVR1 / ALK-2 Reference Antibody (DS-6016a)is more than 95% ,determined by SEC-HPLC.