

ALK2 / ACVR1 Antibody (Internal)
Goat Polyclonal Antibody
Catalog # ALS12616**Specification**

ALK2 / ACVR1 Antibody (Internal) - Product Information

Application	WB
Primary Accession	Q04771
Reactivity	Human, Mouse, Rat, Rabbit, Monkey, Pig, Horse, Bovine, Dog
Host	Goat
Clonality	Polyclonal
Calculated MW	57kDa KDa

ALK2 / ACVR1 Antibody (Internal) - Additional Information**Gene ID** 90**Other Names**

Activin receptor type-1, 2.7.11.30, Activin receptor type I, ACTR-I, Activin receptor-like kinase 2, ALK-2, Serine/threonine-protein kinase receptor R1, SKR1, TGF-B superfamily receptor type I, TSR-I, ACVR1, ACVRLK2

Target/Specificity

Human ACVR1 / ALK2.

Reconstitution & Storage

Store at -20°C. Minimize freezing and thawing.

Precautions

ALK2 / ACVR1 Antibody (Internal) is for research use only and not for use in diagnostic or therapeutic procedures.

ALK2 / ACVR1 Antibody (Internal) - 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](http://www.uniprot.org/citations/20628059), PubMed: [22977237](http://www.uniprot.org/citations/22977237)). As a type I receptor, forms heterotetrameric receptor complexes with the type II receptors AMHR2, ACVR2A or ACVR2B (PubMed: [17911401](http://www.uniprot.org/citations/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

ALK2 / ACVR1 Antibody (Internal) - Protocols

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

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

ALK2 / ACVR1 Antibody (Internal) - Images



Antibody (0.3 ug/ml) staining of Human Umbilical Cord lysate (35 ug protein in RIPA buffer).

ALK2 / ACVR1 Antibody (Internal) - Background

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. Receptor for activin. May be involved for left-right pattern formation during embryogenesis (By

similarity).

ALK2 / ACVR1 Antibody (Internal) - References

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ten Dijke P., et al. Oncogene 8:2879-2887(1993).
Oppermann F.S., et al. Mol. Cell. Proteomics 8:1751-1764(2009).
Umasankar P.K., et al. Nat. Cell Biol. 14:488-501(2012).
Shore E.M., et al. Nat. Genet. 38:525-527(2006).