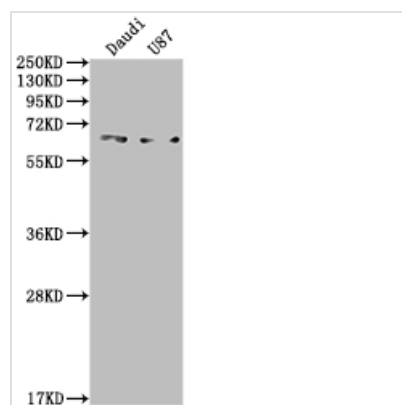




ACVRL1 Antibody

Product Code	CSB-RA555022A0HU
Storage	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.
Uniprot No.	P37023
Immunogen	A synthesized peptide derived from human ACVRL1
Species Reactivity	Human
Tested Applications	ELISA, WB, IHC; Recommended dilution: WB:1:500-1:5000, IHC:1:50-1:200
Relevance	Type I receptor for TGF-beta family ligands BMP9/GDF2 and BMP10 and important regulator of normal blood vessel development. 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. May bind activin as well.
Form	Liquid
Conjugate	Non-conjugated
Storage Buffer	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Purification Method	Affinity-chromatography
Isotype	Rabbit IgG
Clonality	Monoclonal
Product Type	Recombinant Antibody
Immunogen Species	Homo sapiens (Human)
Research Area	Cancer; Cardiovascular; Metabolism; Signal transduction
Gene Names	ACVRL1
Accession NO.	8B6

Image



Western Blot

Positive WB detected in: Daudi whole cell lysate, U87 whole cell lysate

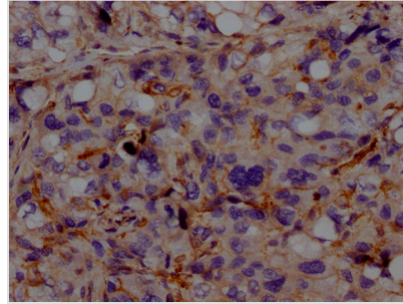
All lanes: ACVRL1 antibody at 1:2000

Secondary

Goat polyclonal to rabbit IgG at 1/50000 dilution

Predicted band size: 57 kDa

Observed band size: 65 kDa



IHC image of CSB-RA555022A0HU diluted at 1:100 and staining in paraffin-embedded human liver cancer performed on a Leica BondTM system. After dewaxing and hydration, antigen retrieval was mediated by high pressure in a citrate buffer (pH 6.0). Section was blocked with 10% normal goat serum 30min at RT. Then primary antibody (1% BSA) was incubated at 4°C overnight. The primary is detected by a Goat anti-rabbit IgG polymer labeled by HRP and visualized using 0.05% DAB.

Description

The TGF- β receptor ACVRL1, also known as ALK1, interacts with ALK5 and enhances the differentiation and recruitment of periendothelial cells such as pericytes and vascular smooth muscle cells (SMCs). ALK1 plays a role in tip/stalk cell selection, migration, and proliferation, as well as the generation and growth of new blood vessels and vascular remodeling, during sprouting angiogenesis. During angiogenesis, the balance between the activation of the ALK1 and ALK5 signaling pathways in endothelial cells is critical for determining the vascular endothelial characteristics. Overexpression of ALK1 causes the establishment of atherosclerotic lesions and enhances mesenchymal cell proliferation and SMC differentiation, suggesting the role of ALK1 in arterial vascular maturation. Hereditary hemorrhagic telangiectasia type 2 (HHT2) is caused by heterozygous mutations in ALK1.

Mammalian cells are transfected with plasma vectors containing ACVRL1 antibody genes, allowing for both recombinant ACVRL1 antibody expression and secretion to the medium. Collecting the cell supernatant and purifying to obtain the recombinant ACVRL1 antibody by Affinity-chromatography. This recombinant ACVRL1 antibody has been validated to detect the ACVRL1 protein of Human in the ELISA, WB, IHC.