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ACVRL1 Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP7807b

Product Information

Application	WB, FC, IHC-P, E
Primary Accession	P37023
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB03737
Calculated MW	56124
Antigen Region	474-503

Additional Information

Gene ID	94
Other Names	Serine/threonine-protein kinase receptor R3, SKR3, Activin receptor-like kinase 1, ALK-1, TGF-B superfamily receptor type I, TSR-I, ACVRL1, ACVRLK1, ALK1
Target/Specificity	This ACVRL1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 474-503 amino acids from the C-terminal region of human ACVRL1.
Dilution	WB~~1:1000 FC~~1:10~50 IHC-P~~1:100~500 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	ACVRL1 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	ACVRL1
Synonyms	ACVRLK1, ALK1

Function	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.
Cellular Location	Cell membrane; Single-pass type I membrane protein

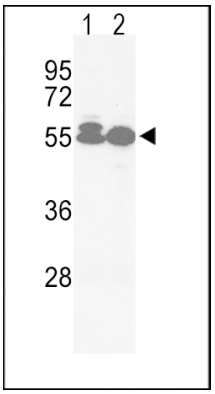
Background

ACVRL1 is a type I cell-surface receptor for the TGF-beta superfamily of ligands. It shares with other type I receptors a high degree of similarity in serine-threonine kinase subdomains, a glycine- and serine-rich region (called the GS domain) preceding the kinase domain, and a short C-terminal tail. This protein, sometimes termed ALK1, shares similar domain structures with other closely related ALK or activin receptor-like kinase proteins that form a subfamily of receptor serine/threonine kinases. Mutations in this gene are associated with hemorrhagic telangiectasia type 2, also known as Rendu-Osler-Weber syndrome 2.

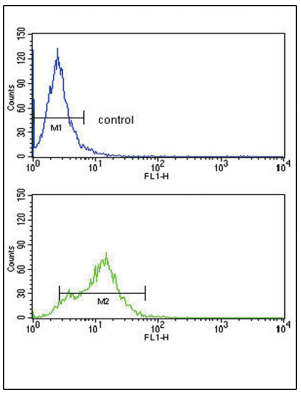
References

Strausberg, R.L., et al., Proc. Natl. Acad. Sci. U.S.A. 99(26):16899-16903 (2002).
Berg, J.N., et al., Am. J. Hum. Genet. 61(1):60-67 (1997).
Johnson, D.W., et al., Nat. Genet. 13(2):189-195 (1996).
ten Dijke, P., et al., Oncogene 8(10):2879-2887 (1993).
Attisano, L., et al., Cell 75(4):671-680 (1993).

Images

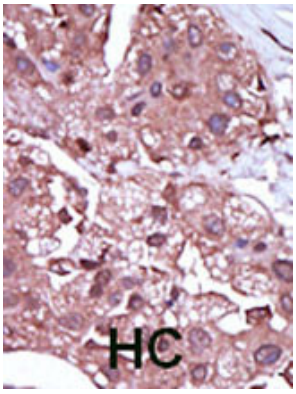


Western blot analysis of hACVRL1-L489 (Cat.#AP7807b) in Jurkat(lane 1), HepG2(lane 2) cell line lysates (35ug/lane). ACVRL1 (arrow) was detected using the purified Pab.



ACVRL1 Antibody (C-term) (Cat.#AP7807b) flow cytometry analysis of HepG2 cells (bottom histogram) compared to a negative control cell (top histogram). FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

Formalin-fixed and paraffin-embedded human cancer tissue reacted with the primary antibody, which was



peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated. BC = breast carcinoma; HC = hepatocarcinoma.