

Rabbit anti-Human ACVR2B Polyclonal Antibody | anti-ACVR2B antibody

ACVR2B Antibody (N-term)

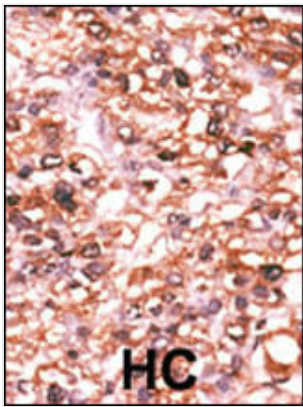
CATALOG # AAA287750	HOST Rabbit	REACTIVITY Human	APPLICATIONS ELISA, Western Blot
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PRODUCT SYNONYMS

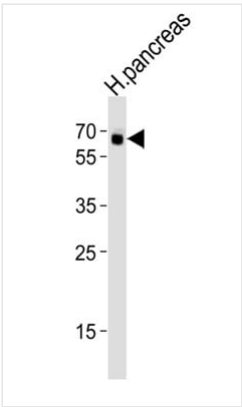
ACVR2B; Polyclonal Antibody; ACVR2B Antibody (N-term); Activin receptor type-2B; Activin receptor type IIB; ACTR-IIB; anti-ACVR2B antibody

PRODUCT SPECIFICATIONS

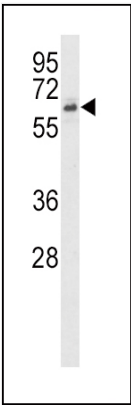
Host	Rabbit
Reactivity	Human
Clonality	Polyclonal
Isotype	IgG
Specificity	This ACVR2B antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide selected between aa 1 and 30 of human ACVR2B.
Purity/Purification	This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
Form/Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide.
Sequence Positions	1-30
Sequence Length	–
Applicable Applications for anti-ACVR2B antibody	ELISA, WB (Western Blot)
Cellular Location	Cell membrane; Single-pass type I membraneprotein
Function	Transmembrane serine/threonine kinase activin type-2 receptor forming an activin receptor complex with activin type-1 serine/threonine kinase receptors (ACVR1, ACVR1B or ACVR1c). Transduces the activin signal from the cell surface to the cytoplasm and is thus regulating many physiological and pathological processes including neuronal differentiation and neuronal survival, hair follicle development and cycling, FSH production by the pituitary gland, wound healing, extracellular matrix production, immunosuppression and carcinogenesis. Activin is also thought to have a paracrine or autocrine role in follicular development in the ovary. Within the receptor complex, the type-2 receptors act as a primary activin receptors (binds activin-A/INHBA, activin-B/INHBB as well as inhibin- A/INHA-INHBA). The type-1 receptors like ACVR1B act as downstream transducers of activin signals. Activin binds to type-2 receptor at the plasma membrane and activates its serine-threonine kinase. The activated receptor type-2 then phosphorylates and activates the type-1 receptor. Once activated, the type-1 receptor binds and phosphorylates the SMAD proteins SMAD2 and SMAD3, on serine residues of the C-terminal tail. Soon after their association with the activin receptor and subsequent phosphorylation, SMAD2 and SMAD3 are released into the cytoplasm where they interact with the common partner SMAD4. This SMAD complex translocates into the nucleus where it mediates activin-induced transcription. Inhibitory SMAD7, which is recruited to ACVR1B through FKBP1A, can prevent the association of SMAD2 and SMAD3 with the activin receptor complex, thereby blocking the activin signal. Activin signal transduction is also antagonized by the binding to the receptor of inhibin-B via the IGSF1 inhibin coreceptor.
Preparation and Storage	For long term storage store at -20 degree C in small aliquots to prevent freeze-thaw cycles.



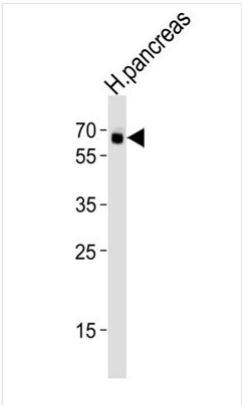
IHC (Immunohistochemistry)
Formalin-fixed and paraffin-embedded human cancer tissue reacted with the primary antibody, which was peroxidase-conjugated to the secondary antibody, followed by AEC staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated. BC = breast carcinoma; HC = hepatocarcinoma.



WB (Western Blot)
Western blot analysis of anti-ACVR2B Antibody (N-term) in mouse heart, kidney and brain lysates (35ug/lane). ACVR2B (arrow) was detected using the purified Pab.



WB (Western Blot)
Western blot analysis of ACVR2B (N-term) in Jurkat cell line lysates (35ug/lane).ACVR2B (arrow) was detected using the purified Pab.



WB (Western Blot)
Western blot analysis of lysate from human pancreas tissue lysate, using ACVR2B Antibody (S14). AAA287750 was diluted at 1:1000. A goat anti-rabbit IgG H&L(HRP) at 1:10000 dilution was used as the secondary antibody. Lysate at 35ug.

ADDITIONAL INFORMATION

Related Product Information for anti-ACVR2B antibody	Activins are dimeric growth and differentiation factors which belong to the transforming growth factor-beta (TGF-beta) superfamily of structurally related signaling proteins. Activins signal through a heteromeric complex of receptor serine kinases which include at least two type I (I and IB) and two type II (II and IIB) receptors. These receptors are all transmembrane proteins, composed of a ligand-binding extracellular domain with cysteine-rich region, a transmembrane domain, and a cytoplasmic domain with predicted serine/threonine specificity. Type I receptors are essential for signaling; and type II receptors are required for binding ligands and for expression of type I receptors. Type I and II receptors form a stable complex after ligand binding, resulting in phosphorylation of type I receptors by type II receptors. Type II receptors are considered to be constitutively active kinases. ACVR2B (activin A type IIB receptor) displays a 3- to 4-fold higher affinity for the ligand than activin A type II receptor.
Product Categories/Family for anti-ACVR2B antibody	Signal Transduction
References	Harrison, C.A., et al., J. Biol. Chem. 279(27):28036-28044 (2004). Martins da Silva, S.J., et al., Dev. Biol. 266(2):334-345 (2004). Casagrandi, D., et al., Mol. Hum. Reprod. 9(4):199-203 (2003). Shin, B.K., et al., J. Biol. Chem. 278(9):7607-7616 (2003). Schneider-Kolsky, M.E., et al., Placenta 23(4):294-302 (2002).

NCBI AND UNIPROT INFORMATION

NCBI GI #	116734708
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NCBI GeneID	93
NCBI Accession #	NP_001097.2
NCBI GenBank Nucleotide #	NM_001106.3
UniProt Accession #	Q13705; Q4VAV0
NCBI Official Full Name	activin receptor type-2B
NCBI Official Synonym Full Names	activin A receptor, type IIB
NCBI Official Symbol	ACVR2B
NCBI Official Synonym Symbols	HTX4; ACTRIIB; ActR-IIB
NCBI Protein Information	activin receptor type-2B
UniProt Protein Name	Activin receptor type-2B
UniProt Gene Name	ACVR2B
UniProt Synonym Gene Names	ACTR-IIB
UniProt Entry Name	AVR2B_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

AAA Biotech | Tel: +1 (619) 604-9440 | Fax: +1 (619) 604-9441 | contact@aaabiotech.com
Online datasheet: <https://stage.aaabiotech.com/polyclonal/acvr2b-antibody-western-blot-elisa/287750>