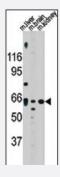


# ACVR2A polyclonal antibody

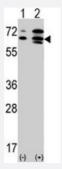
Catalog # PAB2643 Size 400 uL

## **Applications**



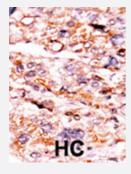
### Western Blot (Tissue lysate)

Western blot analysis of ACVR2A polyclonal antibody (Cat # PAB2643) in mouse liver, brain and kidney tissue lysates (35 ug/lane). ACVR2A (arrow) was detected using the purified polyclonal antibody.



## Western Blot (Transfected lysate)

Western blot analysis of ACVR2A (arrow) using ACVR2A polyclonal antibody (Cat # PAB2643). 293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected with the ACVR2A gene (Lane 2) (Origene Technologies).



# Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections)

Formalin-fixed and paraffin-embedded human hepatocellular carcinoma tissue reacted with ACVR2A polyclonal antibody (Cat # PAB2643), 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. HC = hepatocarcinoma.

Specification	
Product Description	Rabbit polyclonal antibody raised against synthetic peptide of ACVR2A.
Immunogen	A synthetic peptide (conjugated with KLH) corresponding to N-terminus of human ACVR2A.



## **Product Information**

Host	Rabbit
Reactivity	Human
Form	Liquid
Purification	Ammonium sulfate precipitation
Recommend Usage	Western Blot (1:1000) Immunohistochemistry (1:50-100) The optimal working dilution should be determined by the end user.
Storage Buffer	In PBS (0.09% sodium azide)
Storage Instruction	Store at 4°C. For long term storage store at -20°C. Aliquot to avoid repeated freezing and thawing.
Note	This product contains sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which shoul d be handled by trained staff only.

## **Applications**

Western Blot (Tissue lysate)

Western blot analysis of ACVR2A polyclonal antibody (Cat # PAB2643) in mouse liver, brain and kidney tissue lysates (35 ug/lane). ACVR2A (arrow) was detected using the purified polyclonal antibody.

Western Blot (Transfected lysate)

Western blot analysis of ACVR2A (arrow) using ACVR2A polyclonal antibody (Cat # PAB2643). 293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected with the ACVR2A gene (Lane 2) (Origene Technologies).

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections)

Formalin-fixed and paraffin-embedded human hepatocellular carcinoma tissue reacted with ACVR2A polyclonal antibody (Cat # PAB2643), 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. HC = hepatocarcinoma.

Gene	E -	$\wedge \wedge \wedge$	R2A
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UCIIC		$\neg \cup v$	$1 \times -$

Entrez GenelD	<u>92</u>
Protein Accession#	NP_001607;P27037
Gene Name	ACVR2A
Gene Alias	ACTRII, ACVR2



#### **Product Information**

Gene Description	activin A receptor, type IIA
Omim ID	<u>102581</u>
Gene Ontology	<u>Hyperlink</u>
Gene Summary	This gene encodes activin A type II receptor. Activins are dimeric growth and differentiation factor s which belong to the transforming growth factor-beta (TGF-beta) superfamily of structurally relate d signaling proteins. Activins signal through a heteromeric complex of receptor serine kinases whi ch 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 re gion, 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 econsidered to be constitutively active kinases. [provided by RefSeq
Other Designations	-

## **Publication Reference**

Modulation of noncanonical TGF-β signaling prevents cleft palate in Tgfbr2 mutant mice.

lwata J, Hacia JG, Suzuki A, Sanchez-Lara PA, Urata M, Chai Y.

The Journal of Clinical Investigation 2012 Mar; 122(3):873.

Application: WB-Tr, Mouse, Mouse embryonic palatal mesenchymal cells

• Loss of activin receptor type 2 protein expression in microsatellite unstable colon cancers.

Jung B, Doctolero RT, Tajima A, Nguyen AK, Keku T, Sandler RS, Carethers JM.

Gastroenterology 2004 Mar; 126(3):654.

Application: IHC-P, Human, Human colon tumor specimens

• Expression of activin subunits and receptors in the developing human ovary: activin A promotes germ cell survival and proliferation before primordial follicle formation.

Martins da Silva SJ, Bayne RA, Cambray N, Hartley PS, McNeilly AS, Anderson RA.

Developmental Biology 2004 Feb; 266(2):334.

Loss of heterozygosity and mutational analyses of the ACTRII gene locus in human colorectal tumors.

Olaru A, Mori Y, Yin J, Wang S, Kimos MC, Perry K, Xu Y, Sato F, Selaru FM, Deacu E, Sterian A, Shibata D, Abraham JM, Meltzer SJ.

Laboratory Investigation 2003 Dec; 83(12):1867.



## Pathway

- Cytokine-cytokine receptor interaction
- TGF-beta signaling pathway

#### Disease

- Breast Neoplasms
- Colon cancer
- Colonic Neoplasms
- Genetic Predisposition to Disease
- Genomic Instability
- Hyperparathyroidism
- Neoplasms
- Obesity
- Ovarian cancer
- Ovarian Failure
- Ovarian Neoplasms
- Polycystic Ovary Syndrome
- Pre-Eclampsia
- Prostate cancer
- Prostatic Neoplasms
- Puberty
- Thrombophilia
- Tobacco Use Disorder