ACVR1B polyclonal antibody

Catalog # PAB3465 Size 400 uL

Applications



Western Blot (Tissue lysate)

The ACVR1B polyclonal antibody (Cat # PAB3465) is used in Western blot to detect ACVR1B in mouse kidney tissue lysate.



Flow Cytometry

Flow cytometric analysis of 293 cells using ACVR1B polyclonal antibody (Cat # PAB3465)(bottom histogram) compared to a negative control cell (top histogram).

FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

Specification	
Product Description	Rabbit polyclonal antibody raised against synthetic peptide of ACVR1B.
Immunogen	A synthetic peptide (conjugated with KLH) corresponding to N-terminus of human ACVR1B.
Host	Rabbit
Reactivity	Human, Mouse
Form	Liquid
Purification	Ammonium sulfate precipitation



Product Information

Recommend Usage	Flow Cytometry (1:10-50) Western Blot (1:1000) 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.

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Gene Info — ACVR1B	
Entrez GenelD	<u>91</u>
Protein Accession#	<u>P36896</u>
Gene Name	ACVR1B
Gene Alias	ACTRIB, ACVRLK4, ALK4, SKR2
Gene Description	activin A receptor, type IB
Omim ID	<u>601300</u>
Gene Ontology	Hyperlink



Gene Summary

Product Information

Activins are dimeric growth and differentiation factors which belong to the transforming growth fac tor-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 ligan d-binding extracellular domain with a cysteine-rich region, a transmembrane domain, and a cytopl asmic domain with predicted serine/threonine specificity. Type I receptors are essential for signali ng, and type II receptors are required for binding ligands and for expression of type I receptors. Ty pe I and II receptors form a stable complex after ligand binding, resulting in phosphorylation of typ e I receptors by type II receptors. This gene encodes activin A type IB receptor, composed of 11 e xons. Alternative splicing and alternative polyadenylation result in 3 fully described transcript varia nts. The mRNA expression of variants 1, 2, and 3 is confirmed, and a potential fourth variant conta ins an alternative exon 8 and lacks exons 9 through 11, but its mRNA expression has not been co nfirmed. [provided by RefSeq

Other Designations

activin A receptor, type II-like kinase 4|activin A type IB receptor|activin receptor-like kinase 4|seri ne(threonine) protein kinase receptor R2

Publication Reference

Activin signaling through type IB activin receptor stimulates aromatase activity in the ovarian granulosa celllike human granulosa (KGN) cells.

Mukasa C, Nomura M, Tanaka T, Tanaka K, Nishi Y, Okabe T, Goto K, Yanase T, Nawata H. Endocrinology 2003 Apr; 144(4):1603.

Identification of a functional binding site for activin on the type I receptor ALK4.

Harrison CA, Gray PC, Koerber SC, Fischer W, Vale W.

The Journal of Biological Chemistry 2003 Jun; 278(23):21129.

 <u>Overexpression of wild-type activin receptor alk4-1 restores activin antiproliferative effects in human pituitary</u> <u>tumor cells.</u>

Danila DC, Zhang X, Zhou Y, Haidar JN, Klibanski A.

The Journal of Clinical Endocrinology and Metabolism 2002 Oct; 87(10):4741.

Pathway

- Adherens junction
- <u>Chronic myeloid leukemia</u>
- Colorectal cancer



<u>Cytokine-cytokine receptor interaction</u>

Product Information

- Endocytosis
- MAPK signaling pathway
- Pancreatic cancer
- Pathways in cancer
- TGF-beta signaling pathway

Disease

- Genetic Predisposition to Disease
- Head and Neck Neoplasms
- <u>Neoplasm Recurrence</u>
- Neoplasms
- Obesity
- Ovarian Failure
- Polycystic Ovary Syndrome
- Puberty
- Schizophrenia
- Thrombophilia
- Tobacco Use Disorder