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Datasheet for ABIN761231

## anti-Activin A Receptor Type IB/ALK-4 antibody (AA 51-150)

### 1 Image

#### Overview

Quantity:	100 µL
Target:	Activin A Receptor Type IB/ALK-4 (ACVR1B)
Binding Specificity:	AA 51-150
Reactivity:	Rat
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This Activin A Receptor Type IB/ALK-4 antibody is un-conjugated
Application:	ELISA, Immunofluorescence (Cultured Cells) (IF (cc)), Immunofluorescence (Paraffin-embedded Sections) (IF (p)), Immunohistochemistry (Paraffin-embedded Sections) (IHC (p)), Immunohistochemistry (Frozen Sections) (IHC (fro))

#### Product Details

Immunogen:	KLH conjugated synthetic peptide derived from human ACVR1B
Isotype:	IgG
Cross-Reactivity:	Rat
Predicted Reactivity:	Human, Mouse, Dog, Cow, Pig, Horse, Rabbit
Purification:	Purified by Protein A.

#### Target Details

Target:	Activin A Receptor Type IB/ALK-4 (ACVR1B)
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## Target Details

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Alternative Name: [Acvr1b \(ACVR1B Products\)](#)

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Background: Synonyms: ALK4, SKR2, ACTRIB, ACVRLK4, Activin receptor type-1B, Activin receptor type IB, ACTR-IB, Activin receptor-like kinase 4, ALK-4, Serine/threonine-protein kinase receptor R2, ACVR1B

Background: Transmembrane serine/threonine kinase activin type-1 receptor forming an activin receptor complex with activin receptor type-2 (ACVR2A or ACVR2B). Transduces the activin signal from the cell surface to the cytoplasm and is thus regulating a 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, type-2 receptors (ACVR2A and/or ACVR2B) act as a primary activin receptors whereas 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 such as ACVR1B. 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. ACVR1B also phosphorylates TDP2.

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Gene ID: 91

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UniProt: [P36896](#)

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## Application Details

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Application Notes: ELISA 1:500-1000  
IHC-P 1:200-400  
IHC-F 1:100-500  
IF(IHC-P) 1:50-200  
IF(IHC-F) 1:50-200  
IF(ICC) 1:50-200

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## Application Details

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Restrictions: For Research Use only

## Handling

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Format: Liquid

Concentration: 1 µg/µL

Buffer: 0.01M TBS( pH 7.4) with 1 % BSA, 0.02 % Proclin300 and 50 % Glycerol.

Preservative: ProClin

Precaution of Use: This product contains ProClin: a POISONOUS AND HAZARDOUS SUBSTANCE, which should be handled by trained staff only.

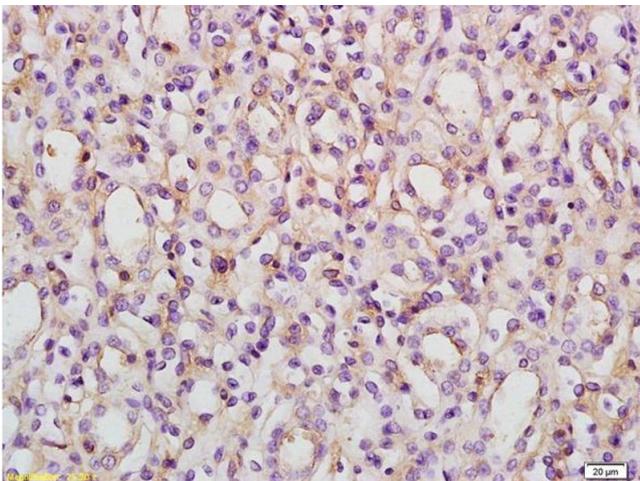
Storage: 4 °C, -20 °C

Storage Comment: Shipped at 4°C. Store at -20°C for one year. Avoid repeated freeze/thaw cycles.

Expiry Date: 12 months

## Images

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### Immunohistochemistry

**Image 1.** Formalin-fixed and paraffin embedded rat kidney labeled with Rabbit Anti ACVR1B/ALK4 Polyclonal Antibody, Unconjugated (ABIN761231) at 1:200 followed by conjugation to the secondary antibody and DAB staining