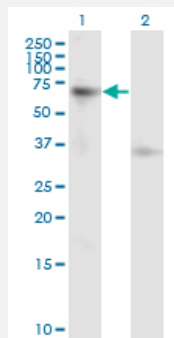


# ACVR1B monoclonal antibody (M09), clone 1C1

Catalog # H00000091-M09

Size 100 ug

## Applications

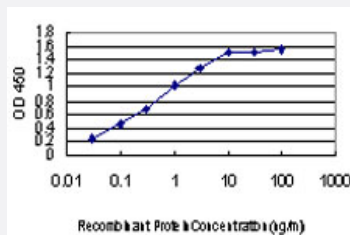


### Western Blot (Transfected lysate)

Western Blot analysis of ACVR1B expression in transfected 293T cell line by ACVR1B monoclonal antibody (M09), clone 1C1.

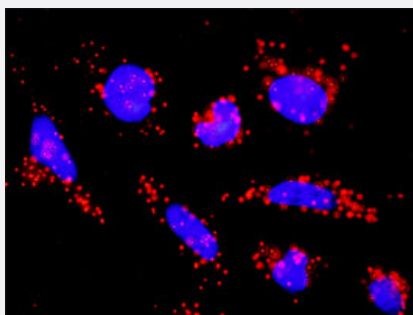
Lane 1: ACVR1B transfected lysate (Predicted MW: 56.8 kDa).

Lane 2: Non-transfected lysate.



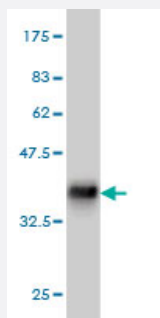
### Sandwich ELISA (Recombinant protein)

Detection limit for recombinant GST tagged ACVR1B is approximately 0.03ng/ml as a capture antibody.



### In situ Proximity Ligation Assay (Cell)

Proximity Ligation Analysis of protein-protein interactions between XIAP and ACVR1B. HeLa cells were stained with anti-XIAP rabbit purified polyclonal 1:1200 and anti-ACVR1B mouse monoclonal antibody 1:50. Each red dot represents the detection of protein-protein interaction complex, and nuclei were counterstained with DAPI (blue).



Western Blot detection against Immunogen (36.96 KDa) .

## Specification

<b>Product Description</b>	Mouse monoclonal antibody raised against a partial recombinant ACVR1B.
<b>Immunogen</b>	ACVR1B (AAH00254, 24 a.a. ~ 126 a.a) partial recombinant protein with GST tag. MW of the GST tag alone is 26 KDa.
<b>Sequence</b>	SGPRGVQALLCACTSC LQANYTCETDGACMVSI FNLDGMEHHVRTCIPKVELVPAGKPFYCLSS EDLRNTHCCYTDYCNRIDLRVPSGHLKEPEHPSMWGPVE
<b>Host</b>	Mouse
<b>Reactivity</b>	Human
<b>Interspecies Antigen Sequence</b>	Mouse (93); Rat (95)
<b>Isotype</b>	IgG1 Kappa
<b>Quality Control Testing</b>	Antibody Reactive Against Recombinant Protein. Western Blot detection against Immunogen (36.96 KDa) .
<b>Storage Buffer</b>	In 1x PBS, pH 7.4
<b>Storage Instruction</b>	Store at -20°C or lower. Aliquot to avoid repeated freezing and thawing.

## Applications

### ● Western Blot (Transfected lysate)

Western Blot analysis of ACVR1B expression in transfected 293T cell line by ACVR1B monoclonal antibody (M09), clone 1C1.

Lane 1: ACVR1B transfected lysate (Predicted MW: 56.8 KDa).

Lane 2: Non-transfected lysate.

[Protocol Download](#)

- Western Blot (Recombinant protein)

[Protocol Download](#)

- Sandwich ELISA (Recombinant protein)

Detection limit for recombinant GST tagged ACVR1B is approximately 0.03ng/ml as a capture antibody.

[Protocol Download](#)

- ELISA

- In situ* Proximity Ligation Assay (Cell)

Proximity Ligation Analysis of protein-protein interactions between XIAP and ACVR1B. HeLa cells were stained with anti-XIAP rabbit purified polyclonal 1:1200 and anti-ACVR1B mouse monoclonal antibody 1:50. Each red dot represents the detection of protein-protein interaction complex, and nuclei were counterstained with DAPI (blue).

## Gene Info — ACVR1B

Entrez GeneID [91](#)

GeneBank Accession# [BC000254](#)

Protein Accession# [AAH00254](#)

Gene Name ACVR1B

Gene Alias ACTRIB, ACVRLK4, ALK4, SKR2

Gene Description activin A receptor, type IB

Omim ID [601300](#)

Gene Ontology [Hyperlink](#)

### Gene Summary

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 a 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. This gene encodes activin A type IB receptor, composed of 11 exons. Alternative splicing and alternative polyadenylation result in 3 fully described transcript variants. The mRNA expression of variants 1, 2, and 3 is confirmed, and a potential fourth variant contains an alternative exon 8 and lacks exons 9 through 11, but its mRNA expression has not been confirmed. [provided by RefSeq]

**Other Designations**

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

**Publication Reference**

- [Activin acutely sensitizes dorsal root ganglion neurons and induces hyperalgesia via PKC-mediated potentiation of transient receptor potential vanilloid 1.](#)

Zhu W, Xu P, Cuascut FX, Hall AK, Oxford GS.

Journal of Neuroscience 2007 Dec; 27(50):13770.

Application: IF, IHC, Rat, Rat neurons

**Pathway**

- [Adherens junction](#)
- [Chronic myeloid leukemia](#)
- [Colorectal cancer](#)
- [Cytokine-cytokine receptor interaction](#)
- [Endocytosis](#)
- [MAPK signaling pathway](#)
- [Pancreatic cancer](#)
- [Pathways in cancer](#)
- [TGF-beta signaling pathway](#)

**Disease**

- [Genetic Predisposition to Disease](#)
- [Head and Neck Neoplasms](#)
- [Neoplasm Recurrence](#)
- [Neoplasms](#)

- [Obesity](#)
- [Ovarian Failure](#)
- [Polycystic Ovary Syndrome](#)
- [Puberty](#)
- [Schizophrenia](#)
- [Thrombophilia](#)
- [Tobacco Use Disorder](#)