For Research Use Only

ACVR1 Monoclonal antibody

Catalog Number:67417-1-Ig 1 Publications

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Basic Information

Catalog Number:
67417-1-Ig

Size:
1000 μg/ml

Source:
Mouse

Isotype:
IgG2a

Immunogen Catalog Number:
AG13508

GenBank Accession Number:
BC033867

GeneID (NCBI):
90

UNIPROT ID:
Q04771

Full Name:
activin A receptor, type I

Calculated MW:
509 aa, 57 kDa

Observed MW:
57 kDa

Purification Method:
Protein A purification

CloneNo.:
1F11B10

Recommended Dilutions:
WB 1:1000-1:6000
IHC 1:150-1:600
IF-P 1:200-1:800

Applications

Tested Applications:
IF-P, IHC, WB, ELISA

Cited Applications:
WB

Species Specificity:
Human, Pig, Mouse, Rat

Cited Species:
human

Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0

Positive Controls:

WB : pig brain tissue, rat brain tissue, NCI-H1299 cells, mouse brain tissue, JAR cells

IHC : mouse heart tissue, mouse brain tissue

IF-P : mouse brain tissue,

Background Information

ACVR1 (activin receptor type I), also known as ALK2 or ACTRI, is a receptor for activin. It forms a stable complex with type II receptor after ligand binding. 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. ACVR1 is expressed in many tissues including skeletal muscle and chondrocytes. It functions as a receptor for bone morphogenetic protein (BMP) and induces Indian hedgehog in chondrocytes during skeletal development. Mutations in ACVR1 gene are associated with fibrodysplasia ossificans progressive (PMID: 16642017).

Notable Publications

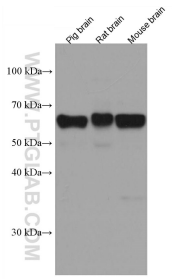
Author	Pubmed ID	Journal	Application
Chang Cao	33354912	J Cell Mol Med	WB

Storage

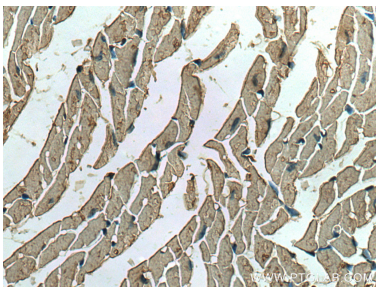
Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.
Aliquoting is unnecessary for -20°C storage

For technical support and original validation data for this product please contact:
T: 4006900926 E: Proteintech-CN@ptglab.com W: ptgcn.com

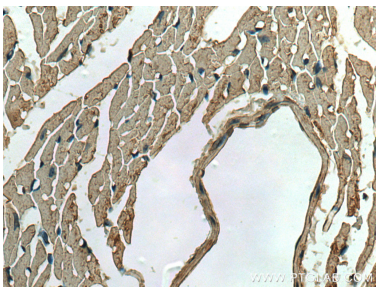
Selected Validation Data



Various lysates were subjected to SDS PAGE followed by western blot with 67417-1-Ig (ACVR1 antibody) at dilution of 1:3000 incubated at room temperature for 1.5 hours.



Immunohistochemical analysis of paraffin-embedded mouse heart tissue slide using 67417-1-Ig (ACVR1 antibody) at dilution of 1:300 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



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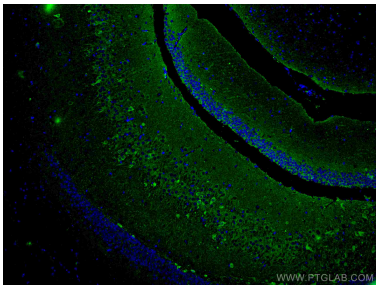
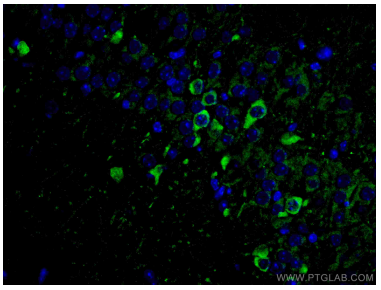


Immunofluorescent analysis of (4% PFA) fixed mouse brain tissue using ACVR1 antibody (67417-1-Ig, Clone: 1F11B10) at dilution of 1:400 and CoraLite®488-Conjugated AffiniPure Goat Anti-Mouse IgG(H+L).



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