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Mouse Acvr2b Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP13908c

Product Information

Application	WB, E
Primary Accession	P27040
Other Accession	NP_031423.1
Reactivity	Human, Mouse
Predicted	Rat, Bovine, Canine, Chicken
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB34444
Calculated MW	60542
Antigen Region	148-176

Additional Information

Gene ID	11481
Other Names	Activin receptor type-2B, Activin receptor type IIB, ACTR-IIB, Acvr2b
Target/Specificity	This Mouse Acvr2b antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 148-176 amino acids from the Central region of mouse Acvr2b.
Dilution	WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	Mouse Acvr2b Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	Acvr2b
Function	Transmembrane serine/threonine kinase activin type-2 receptor forming an activin receptor complex with activin type-1 serine/threonine kinase receptors (ACVR1, ACVR1B or ACVR1c). Transduces the activin signal from the cell

surface to the cytoplasm and is thus regulating 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, the type-2 receptors act as a primary activin receptors (binds activin-A/INHBA, activin-B/INHBB as well as inhibin- A/INHA-INHBA). 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. 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 (By similarity).

Cellular Location Cell membrane {ECO:0000250|UniProtKB:Q13705}; Single-pass type I membrane protein

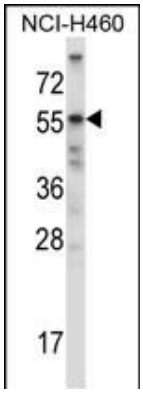
Background

On ligand binding, forms a receptor complex consisting of two type II and two type I transmembrane serine/threonine kinases. Type II receptors phosphorylate and activate type I receptors which autophosphorylate, then bind and activate SMAD transcriptional regulators. Receptor for activin A, activin B and inhibin A.

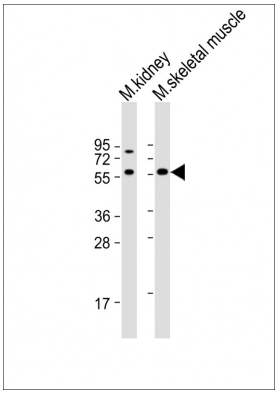
References

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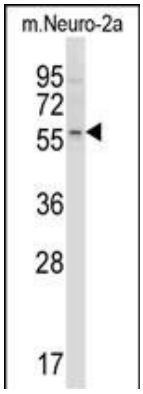
Images



Mouse Acvr2b Antibody (Center) (Cat. #AP13908c) western blot analysis in NCI-H460 cell line lysates (35ug/lane).This demonstrates the Acvr2b antibody detected the Acvr2b protein (arrow).



All lanes : Anti-Acvr2b Antibody (Center) at 1:1000 dilution Lane 1: mouse kidney lysate Lane 2: mouse skeletal muscle lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 61 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



Mouse Acvr2b Antibody (Center) (Cat. #AP13908c) western blot analysis in mouse Neuro-2a cell line lysates (35ug/lane).This demonstrates the Acvr2b antibody detected the Acvr2b protein (arrow).

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.