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ACVR2A Antibody (N-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP7103A

Product Information

Application	WB, E
Primary Accession	P27037
Other Accession	P38444, P27038, Q90669, Q28043
Reactivity	Human, Rat, Mouse
Predicted	Mouse, Rat, Chicken, Bovine
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	57848
Antigen Region	2-29

Additional Information

Gene ID	92
Other Names	Activin receptor type-2A, Activin receptor type IIA, ACTR-IIA, ACTRIIA, ACVR2A, ACVR2
Target/Specificity	This ACVR2A antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 2-29 amino acids from the N-terminal region of human ACVR2A.
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 prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
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	ACVR2A Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	ACVR2A (HGNC:173)
Synonyms	ACVR2
Function	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 (PubMed:17911401, PubMed:10652306). Mediates induction of adipogenesis by GDF6 (By similarity).
Cellular Location	Cell membrane {ECO:0000250|UniProtKB:P27038}; Single-pass type I membrane protein

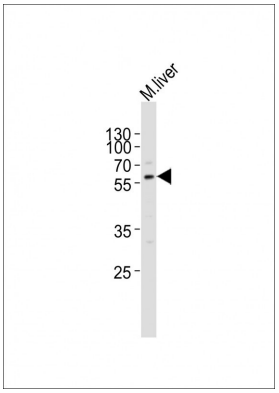
Background

ACVR2A is an activin A type II receptor. 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 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. Type II receptors are considered to be constitutively active kinases.

References

Jung, B., et al., Gastroenterology 126(3):654-659 (2004).
Martins da Silva, S.J., et al., Dev. Biol. 266(2):334-345 (2004).
Olaru, A., et al., Lab. Invest. 83(12):1867-1871 (2003).
Casagrandi, D., et al., Mol. Hum. Reprod. 9(4):199-203 (2003).
Greenwald, J., et al., Mol. Cell 11(3):605-617 (2003).

Images



Anti-ACVR2A Antibody (N-term) at 1:2000 dilution + mouse liver lysates Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution Predicted band size : 57. 8 kDa Blocking/Dilution buffer: 5% NFDM/TBST.