

# Anti-ACVR2B Reference Antibody (bimagrumab)

Recombinant Antibody

Catalog # APR10008

## Product Information

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<b>Application</b>	FC, Animal Model, Kinetics
<b>Primary Accession</b>	<a href="#">Q13705</a>
<b>Reactivity</b>	Human, Mouse
<b>Clonality</b>	Monoclonal
<b>Isotype</b>	IgG1
<b>Calculated MW</b>	57724

## Additional Information

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<b>Target/Specificity</b>	ACVR2B
<b>Endotoxin</b>	
<b>Conjugation</b>	Unconjugated
<b>Expression system</b>	CHO Cell
<b>Format</b>	Purified monoclonal antibody supplied in PBS, pH6.0, without preservative. This antibody is purified through a protein A column.

## Protein Information

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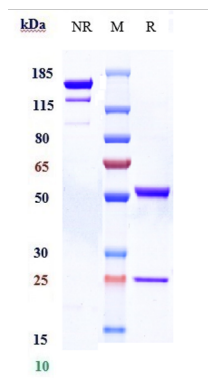
<b>Name</b>	ACVR2B
<b>Function</b>	Transmembrane serine/threonine kinase activin type-2 receptor forming an activin receptor complex with activin type-1 serine/threonine kinase receptors (ACVR1, ACVR1B or ACVR1c). Transduces the activin signal from the cell surface to the cytoplasm and is thus regulating 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/INHBA-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.

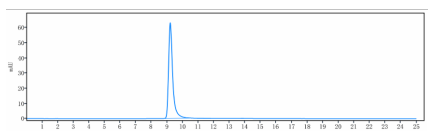
## Cellular Location

Cell membrane; Single-pass type I membrane protein

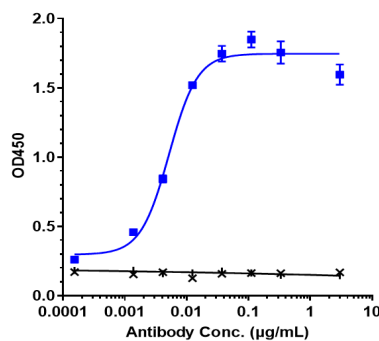
## Images



Anti-ACVR2B Reference Antibody (bimagrumab) on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95%



The purity of Anti-ACVR2B Reference Antibody (bimagrumab) is more than 100%, determined by SEC-HPLC.



Immobilized human ACVR2B chis at 2 µg/mL can bind Anti-ACVR2B Reference Antibody (bimagrumab),  $EC_{50}=0.005171$  µg/mL.

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