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BMPR1A Antibody (N-term K36)

Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP2004C

Specification

BMPR1A Antibody (N-term K36) - Product Information

Application	IF, WB,E
Primary Accession	P36894
Other Accession	NP_004320
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit Ig
Antigen Region	21-51

BMPR1A Antibody (N-term K36) - Additional Information

Gene ID 657

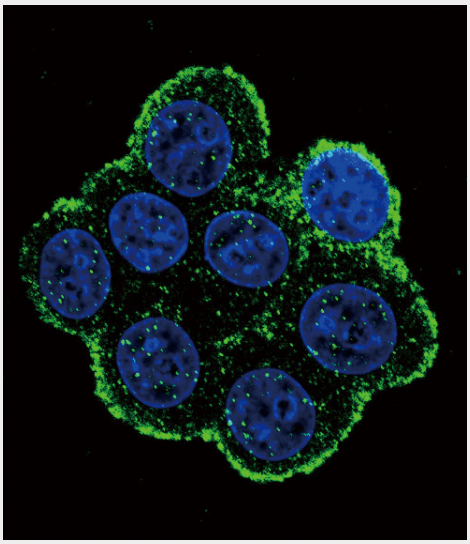
Other Names
Bone morphogenetic protein receptor type-1A, BMP type-1A receptor, BMPR-1A, Activin receptor-like kinase 3, ALK-3, Serine/threonine-protein kinase receptor R5, SKR5, CD292, BMPR1A, ACVRLK3, ALK3

Target/Specificity
This BMPR1A antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 21-51 amino acids from the N-terminal region of human BMPR1A.

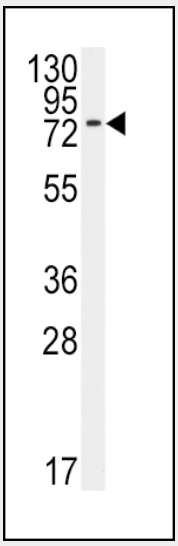
Dilution
IF~~1:10~50
WB~~1:1000

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.



Confocal immunofluorescent analysis of BMPR1A Antibody (N-term K36)(Cat#AP2004c) with 293 cell followed by Alexa Fluor 488-conjugated goat anti-rabbit IgG (green). DAPI was used to stain the cell nuclear (blue).



Western blot analysis of anti-BMPR1A Antibody (N-term K36)(Cat.#AP2004c) in 293 cell line lysates (35ug/lane). BMPR1A(arrow) was detected using the purified Pab.

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Precautions
BMPR1A Antibody (N-term K36) is for research use only and not for use in diagnostic or therapeutic procedures.

BMPR1A Antibody (N-term K36) - Protein Information

Name BMPR1A

Synonyms ACVRLK3, ALK3

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 BMP2, BMP4, GDF5 and GDF6. Positively regulates chondrocyte differentiation through GDF5 interaction. Mediates induction of adipogenesis by GDF6.

Cellular Location
Cell membrane {ECO:0000250|UniProtKB:P36898}; Single-pass type I membrane protein. Cell surface {ECO:0000250|UniProtKB:P36895}

Tissue Location
Highly expressed in skeletal muscle.

BMPR1A Antibody (N-term K36) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

BMPR1A Antibody (N-term K36) - Background

The bone morphogenetic protein (BMP) receptors belong to a family of transmembrane serine/threonine kinases including the type I receptors BMPR1A and BMPR1B and the type II receptor BMPR2. These receptors are also closely related to the activin receptors, ACVR1 and ACVR2. The ligands of these receptors are members of the TGF-beta superfamily. Both activins and TGF-beta transduce their signals through the formation of heteromeric complexes with 2 different types of serine (threonine) kinase receptors. Type II receptors bind ligands in the absence of type I receptors, but they require their respective type I receptors for signaling, whereas type I receptors require their respective type II receptors for ligand binding. BMP receptors are highly expressed in bone, skeletal muscle, heart and liver tissue. BMPRs play a crucial role during development as mutations or deletions to the BMPR genes can cause juvenile polyposis, disrupt normal dorsal/ventral patterning during limb development, and may be a factor in the progession of Cowden-like syndrome. Germline mutations in the BMPR2 gene encoding bone morphogenetic protein (BMP) type II receptor (BMPR-II) have been reported in patients with primary pulmonary hypertension (PPH).

BMPR1A Antibody (N-term K36) - References

Zhou, X.-P., et al., Am. J. Hum. Genet. 69(4):704-711 (2001).
Howe, J.R., et al., Nat. Genet. 28(2):184-187 (2001).
ten Dijke, P., et al., Oncogene 8(10):2879-2887 (1993).