

**BMPR1A Antibody (Center C180)**  
**Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP2004D**

**Specification**

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**BMPR1A Antibody (Center C180) - Product Information**

Application	<b>WB, IHC-P,E</b>
Primary Accession	<a href="#">P36894</a>
Reactivity	<b>Human</b>
Host	<b>Rabbit</b>
Clonality	<b>Polyclonal</b>
Isotype	<b>Rabbit IgG</b>
Antigen Region	<b>166-195</b>

**BMPR1A Antibody (Center C180) - 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 166-195 amino acids from the Central region of human BMPR1A.

**Dilution**

WB~~1:2000  
IHC-P~~1:50~100

**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**

BMPR1A Antibody (Center C180) is for research use only and not for use in diagnostic or therapeutic procedures.

**BMPR1A Antibody (Center C180) - 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. May promote the expression of HAMP, potentially via its interaction with BMP2 (By similarity).

#### Cellular Location

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

#### Tissue Location

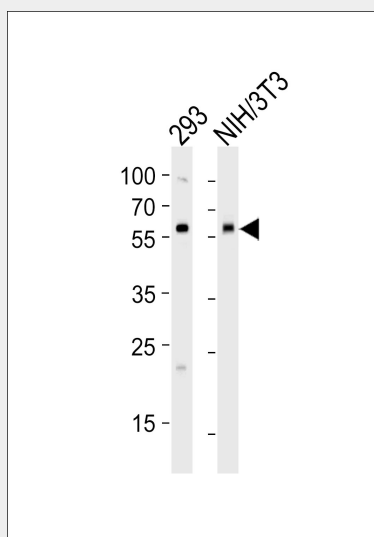
Highly expressed in skeletal muscle.

### BMPR1A Antibody (Center C180) - Protocols

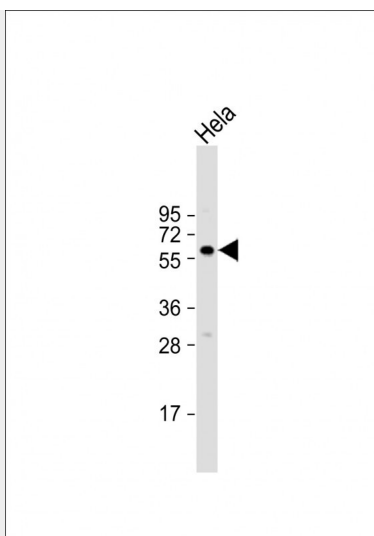
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

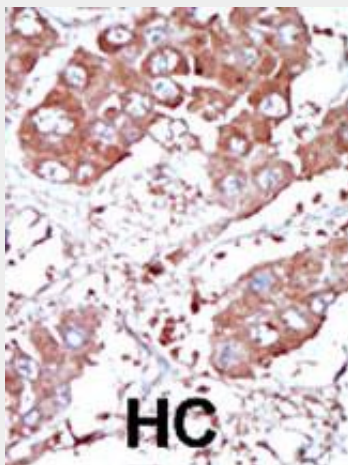
### BMPR1A Antibody (Center C180) - Images



Western blot analysis of lysates from 293, mouse NIH/3T3 cell line (from left to right), using BMPR1A Antibody (C180) (Cat. #AP2004d). AP2004d was diluted at 1:1000 at each lane. A goat anti-rabbit IgG H&L(HRP) at 1:5000 dilution was used as the secondary antibody. Lysates at 35ug per lane.



Anti-BMPRI1A Antibody (C180) at 1:2000 dilution + HeLa whole cell lysate Lysates/proteins at 20  $\mu$ g per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 60 kDa Blocking/Dilution buffer: 5% NFDN/TBST.



Formalin-fixed and paraffin-embedded human cancer tissue reacted with the primary antibody, which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated. BC = breast carcinoma; HC = hepatocarcinoma.

#### **BMPRI1A Antibody (Center C180) - Background**

The bone morphogenetic protein (BMP) receptors are a family of transmembrane serine/threonine kinases that include the type I receptors BMPRI1A and BMPRI1B and the type II receptor BMPRI2. 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. TGF-betas and activins transduce their signals through the formation of heteromeric complexes with 2 different types of serine (threonine) kinase receptors: type I receptors of about 50-55 kD and type II receptors of about 70-80 kD. 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.

#### **BMPRI1A Antibody (Center C180) - 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).

**BMPR1A Antibody (Center C180) - Citations**

- [The bone morphogenetic protein signaling pathway is upregulated in a mouse model of total parenteral nutrition.](#)