SunLong Biotech Co.,LTD
Tel: 0086-571-56623320 Fax:0086-571-56623318
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**[ Primary Antibody ]**

# Rabbit Anti-BMPR1A antibody

**Catalog Number: SL1509R**

**FOR RESEARCH USE ONLY**

**[ DATASHEET ]**

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|---|---|
| **Host:** | Rabbit |
| **Isotype:** | IgG |
| **Clonality:** | Polyclonal |
| **Target:** | BMPR1A |
| **Immunogen:** | KLH conjugated synthetic peptide derived from human BMPR-1A: 101-200/532 <Extracellular> |
| **Purification:** | affinity purified by Protein A |
| **Concentration:** | 1mg/ml |
| **Storage:** | 0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol. Shipped at 4℃. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. |
| **Applications:** | WB (1:500-2000)<br>IHC-P (1:100-500)<br>IHC-F (1:100-500)<br>IF (1:100-500)<br>Flow-Cyt (1ug/Test)<br>Not yet tested in other applications.<br>Optimal working dilutions must be determined by the end user. |
| **Reactivity:** | Human, Mouse, Rat |
| **Predicted MW.:** | 60kDa |
| **Subcellular Location:** | The cell membrane |
| **Background:** | The bone morphogenetic protein (BMP) receptors are a family of transmembrane serine/threonine kinases that include 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. 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 |

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| | respective type II receptors for ligand binding. [provided by RefSeq].<br>**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 BMP-2 and BMP-4.<br>**Subcellular Location:** Membrane; Single-pass type I membrane protein.<br>**Tissue Specificity:** Highly expressed in skeletal muscle.<br>DISEASE: Defects in BMPR1A are a cause of juvenile polyposis syndrome (JPS) [MIM:174900]; also known as juvenile intestinal polyposis (JIP). JPS is an autosomal dominant gastrointestinal hamartomatous polyposis syndrome in which patients are at risk for developing gastrointestinal cancers. The lesions are typified by a smooth histological appearance, predominant stroma, cystic spaces and lack of a smooth muscle core. Multiple juvenile polyps usually occur in a number of Mendelian disorders. Sometimes, these polyps occur without associated features as in JPS; here, polyps tend to occur in the large bowel and are associated with an increased risk of colon and other gastrointestinal cancers.<br>Defects in BMPR1A are a cause of Cowden disease (CD) [MIM:158350]. CD is an autosomal dominant cancer syndrome characterized by multiple hamartomas and by a high risk for breast, thyroid and endometrial cancers.<br>**Similarity:** Belongs to the protein kinase superfamily. TKL Ser/Thr protein kinase family. TGFB receptor subfamily.<br>Contains 1 GS domain.<br>Contains 1 protein kinase domain.<br>**Database links:**<br>**Entrez Gene:** 657 Human<br>**Entrez Gene:** 12166 Mouse<br>**Entrez Gene:** 81507 Rat<br>Omim: 601299 Human<br>**SwissProt:** P36894 Human<br>**SwissProt:** P36895 Mouse<br>**SwissProt:** Q78EA7 Rat<br>**Unigene:** 524477 Human<br>**Unigene:** 237825 Mouse<br>**Unigene:** 88925 Rat |

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## [ VALIDATION IMAGES ]

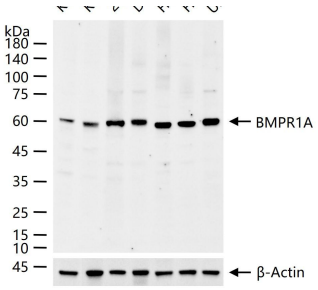



Figure 1. 25 ug total protein per lane of various lysates (see on figure) probed with BMPR1A polyclonal antibody, unconjugated (SL1509R) at 1:1000 dilution and 4°C overnight incubation. Followed by conjugated secondary antibody incubation at r.t. for 60 min

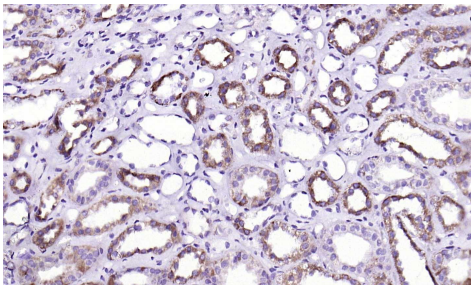


Figure 2. Paraformaldehyde-fixed, paraffin embedded (Human kidney); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (BMPR1A) Polyclonal Antibody, Unconjugated (SL1509R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining

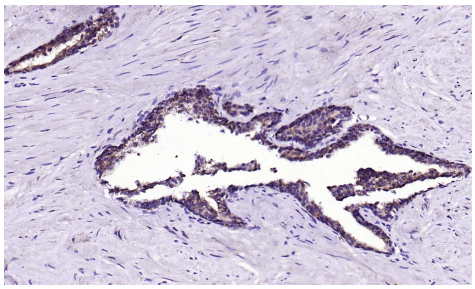


Figure 3. Paraformaldehyde-fixed, paraffin embedded (human prostate ); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (BMPR1A) Polyclonal Antibody, Unconjugated (SL1509R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining

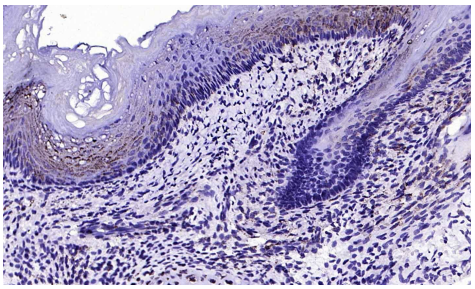


Figure 4. Paraformaldehyde-fixed, paraffin embedded (Rat bone); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (BMPR1A) Polyclonal Antibody, Unconjugated (SL1509R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining

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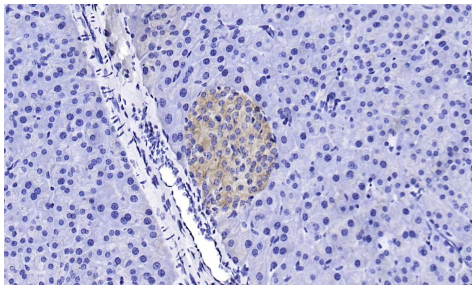


Figure 5. Paraformaldehyde-fixed, paraffin embedded (rat pancreas); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (BMPR1A) Polyclonal Antibody, Unconjugated (SL1509R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining

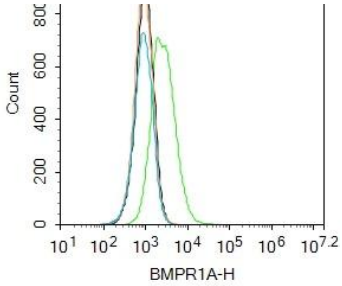



Figure 6. Blank control:A549. Primary Antibody (green line): Rabbit Anti-BMPR1A antibody (SL1509R) Dilution: 1ug/Test; Secondary Antibody: Goat anti-rabbit IgG-FITC Dilution: 0.5ug/Test. Protocol The cells were incubated in 5%BSA to block non-specific protein-protein interactions for 30 min at room temperature.Cells stained with Primary Antibody for 30 min at room temperature. The secondary antibody used for 40 min at room temperature. Acquisition of 20,000 events was performed

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