

Rabbit anti-Human BMPR1A/ALK-3 Polyclonal Antibody | anti-BMPR1A antibody

Anti-BMPR1A/ALK-3 Antibody, Rabbit Polyclonal

CATALOG # AAA254321	HOST Rabbit	REACTIVITY Human	APPLICATIONS Immunohistochemistry
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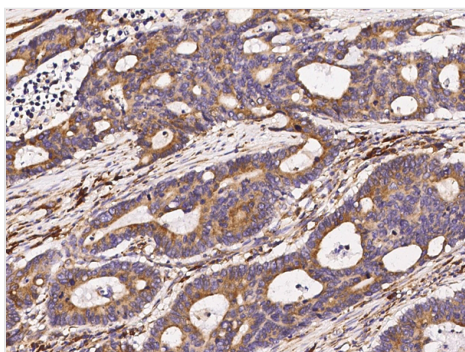
PRODUCT SYNONYMS

BMPR1A/ALK-3; Polyclonal Antibody; Anti-BMPR1A/ALK-3 Antibody; Rabbit Polyclonal; ALK-3/BMPR1A Antibody; Rabbit PAb; Antigen Affinity Purified; bone morphogenetic protein receptor; type IA; Anti-10q23del Antibody; Anti-ACVRLK3 Antibody; Anti-ALK3 Antibody; Anti-CD292 Antibody; Anti-SKR5 Antibody; anti-BMPR1A antibody

PRODUCT SPECIFICATIONS

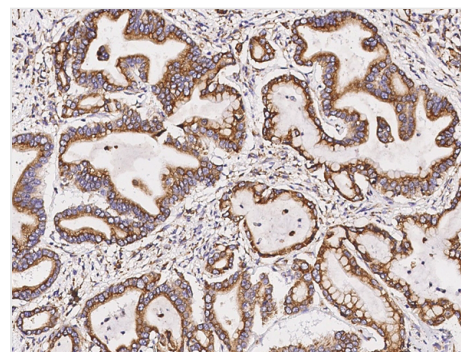
Host	Rabbit
Reactivity	Human
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	Human ALK-3/BMPR1A
Purity/Purification	Protein A & Antigen Affinity
Form/Format	Liquid; 0.2um filtered solution in PBS
Applicable Applications for anti-BMPR1A antibody	IHC (Immunohistochemistry)
Immunogen	A synthetic peptide corresponding to the N-terminus of the Human ALK-3/BMPR1A
Conjugation	Unconjugated
Preparation	Produced in rabbits immunized with a synthetic peptide corresponding to the N-terminus of the Human ALK-3/BMPR1A, and purified by antigen affinity chromatography.
Preparation and Storage	This antibody can be stored at 2-8 degree C for one month without detectable loss of activity. Antibody products are stable for twelve months from date of receipt when stored at -20 degree C to -80 degree C. Preservative-Free. Avoid repeated freeze-thaw cycles.

IMAGES



IHC (Immunohistochemistry)

Immunochemical staining of human BMPR1A in human colon carcinoma with rabbit polyclonal antibody (1:2000, formalin-fixed paraffin embedded sections).



IHC (Immunohistochemistry)

Immunochemical staining of human BMPR1A in human gastric cancer with rabbit polyclonal antibody (1:2000, formalin-fixed paraffin embedded sections).

ADDITIONAL INFORMATION

Related Product Information for anti-BMPR1A antibody	Activin receptor-Like Kinase 3 (ALK-3), also known as Bone Morphogenetic Protein Receptor, type IA (BMPR1A), is a type I receptor for bone morphogenetic proteins (BMPs) which belong to the transforming growth factor beta (TGF-beta) superfamily. The BMP receptors form a subfamily of transmembrane serine/threonine kinases including the type I receptors BMPR1A and BMPR1B and the type II receptor BMPR2. ALK-3/BMPR1A is expressed in the epithelium during branching morphogenesis. Deletion of BMPR1A in the epithelium with an Sftpc-cre transgene leads to dramatic defects in lung development. ALK-3 and ALK-6 share a high degree of homology, yet possess distinct signaling roles. The transforming growth factor (TGF)-beta type III receptor (TbetaRIII) enhanced both ALK-3 and ALK-6 signaling. TbetaRIII associated with ALK-3 primarily through their extracellular domains, whereas its interaction with ALK-6 required both the extracellular and cytoplasmic domains. ALK-3 plays an essential role in the formation of embryonic ventral abdominal wall, and abrogation of BMP signaling activity due to gene mutations in its signaling components could be one of the underlying causes of omphalocele at birth. The type IA BMP receptor, ALK-3 was specifically required at mid-gestation for normal development of the trabeculae, compact myocardium, interventricular septum, and endocardial cushion. Cardiac muscle lacking ALK-3 was specifically deficient in expressing TGFbeta2, an established paracrine mediator of cushion morphogenesis. Hence, ALK-3 is essential, beyond just the egg cylinder stage, for myocyte-dependent functions and signals in cardiac organogenesis.
References	Gaussin V, et al. (2002) Endocardial cushion and myocardial defects after cardiac myocyte-specific conditional deletion of the bone morphogenetic protein receptor ALK3. Proc Natl Acad Sci U S A. 99(5): 2878-83.Eblaghie MC, et al. (2006) Evidence that autocrine signaling through Bmpr1a regulates the proliferation, survival and morphogenetic behavior of distal lung epithelial cells. Dev Biol. 291(1): 67-82.Sun J, et al. (2007) Deficient Alk3-mediated BMP signaling causes prenatal omphalocele-like defect. Biochem Biophys Res Commun. 360(1): 238-43.Lee NY, et al. (2009) The transforming growth factor-beta type III receptor mediates distinct subcellular trafficking and downstream signaling of activin-like kinase (ALK)3 and ALK6 receptors. Mol Biol Cell. 20(20): 4362-70.

NCBI AND UNIPROT INFORMATION

NCBI GI #	41349437
NCBI GeneID	657
NCBI Accession #	NP_004320.2
NCBI GenBank Nucleotide #	NM_004329.2
UniProt Accession #	P36894; Q8NEN8; A8K6U9
Molecular Weight	60,198 Da
NCBI Official Full Name	bone morphogenetic protein receptor type-1A
NCBI Official Synonym Full Names	bone morphogenetic protein receptor, type IA
NCBI Official Symbol	BMPR1A
NCBI Official Synonym Symbols	ALK3; SKR5; CD292; ACVRLK3; 10q23del
NCBI Protein Information	bone morphogenetic protein receptor type-1A; ALK-3; BMPR-1A; BMP type-1A receptor; activin receptor-like kinase 3; activin A receptor, type II-like kinase 3; serine/threonine-protein kinase receptor R5
UniProt Protein Name	Bone morphogenetic protein receptor type-1A
UniProt Gene Name	BMPR1A
UniProt Synonym Gene Names	ACVRLK3; ALK3; BMP type-1A receptor; BMPR-1A; ALK-3; SKR5
UniProt Entry Name	BMR1A_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.