BMPR1A Antibody (N-Term) Blocking Peptide

PRODUCT OVERVIEW

Product Name	BMPR1A, Blocking Peptide
Full Product Name	BMPR1A Antibody (N-term) Blocking Peptide
Product Gene Name	BMPR1A blocking peptide
Product Synonym Gene Name	ACVRLK3; ALK3
Product Synonym 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
Form/Format	The synthetic peptide was lyophilized with 100% acetonitrile and is supplied as a powder. Reconstitute with 0.1 ml deionized water for a final concentration of 1 mg/ml.
Specificity	The synthetic peptide sequence used to generate the antibody was selected from the N-term region of human BMPR1A. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.
Preparation and Storage	Maintain refrigerated at 2-8 degree C for up to 6 months. For long term storage store at -20 degree C.
Antibody/Peptide Pairs	BMPR1A peptide (MBS9224467) is used for blocking the activity of BMPR1A antibody (MBS9213593)
Molecular Weight	60,198 Da
OMIM	174900
Cellular Location	Membrane; Single-pass type I membrane protein
Tissue Location	Highly expressed in skeletal muscle.
Related Product Information for BMPR1A blocking peptide	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.
Other Notes	Small volumes of BMPR1A blocking peptide vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for BMPR1A purchase	MBS9224467 is a blocking peptide targeting BMPR1A. Also known as BMPR1A Antibody (N-term) Blocking Peptide.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for BMPR1A. It may not necessarily be applicable to this product.

NCBI GI #	41349437
NCBI GeneID	657
NCBI Accession #	NP_004320
UniProt Primary Accession #	P36894
UniProt Secondary Accession #	Q8NEN8; A8K6U9
UniProt Related Accession #	P36894
GenBank Nucleotide #	NM_004329.2
NCBI Official Full Name	bone morphogenetic protein receptor type-1A

NCBI Official Synonym Full Names	bone morphogenetic protein receptor type 1A
NCBI Official Symbol	BMPR1A
NCBI Official Synonym Symbols	ALK3; SKR5; CD292; ACVRLK3; 10q23del
UniProt Protein Name	Bone morphogenetic protein receptor type-1A
UniProt Synonym Protein Names	Activin receptor-like kinase 3; ALK-3; Serine/threonine-protein kinase receptor R5; SKR5; CD_antigen: CD292
Protein Family	Bone morphogenetic protein receptor
UniProt Gene Name	BMPR1A
UniProt Synonym Gene Names	ACVRLK3; ALK3; BMP type-1A receptor; BMPR-1A; ALK-3; SKR5
UniProt Entry Name	BMR1A_HUMAN
NCBI Protein Information	bone morphogenetic protein receptor type-1A
NCBI Summary for BMPR1A	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 respective type II receptors for ligand binding. [provided by RefSeq, Jul 2008]
UniProt Comments for BMPR1A	BMPR1A: a serine/threonine-protein kinase receptor for Bone morphogenetic protein-2 and -4 (BMP-2 and BMP-4). Defects in BMPR1A are a cause of juvenile polyposis syndrome (JPS) and Cowden disease (CD), a cancer syndrome characterized by multiple hamartomas and by a high risk for breast, thyroid and endometriel cancers. Protein type: Kinase, protein; EC 2.7.11.30; Protein kinase, Ser/Thr (receptor); Protein kinase, TKL; Membrane protein, integral; TKL group; STKR family; Type1 subfamily Chromosomal Location of Human Ortholog: 10q22.3 Cellular Component: caveola; external side of plasma membrane; plasma membrane Molecular Function: ATP binding; glycoprotein binding; protein binding; protein homodimerization activity; protein serine/threonine kinase activity; SMAD binding; transmembrane receptor protein serine/threonine kinase activity Biological Process: BMP signaling pathway; immune response; positive regulation of bone mineralization; positive regulation of osteoblast differentiation; positive regulation of transcription from RNA polymerase II promoter; protein amino acid phosphorylation; transforming growth factor beta receptor signaling pathway Disease: Juvenile Polyposis Syndrome; Polyposis Syndrome, Hereditary Mixed, 2
Research Articles on BMPR1A	**1.** About half of BMPR1A-related polyps displayed loss of heterozygosity, predominantly in the epithelial compartment, compatible with BMPR1A acting as a tumour suppressor gene.
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