Bone Morphogenetic Protein Receptor II (BMPR2) ELISA Kit for Goat

PRODUCT OVERVIEW

Product Name	Bone Morphogenetic Protein Receptor II (BMPR2), ELISA Kit
Full Product Name	Goat Bone Morphogenetic Protein Receptor II ELISA Kit
Product Gene Name	BMPR2 elisa kit
Species Reactivity	Goat
Assay Type	Sandwich
Preparation and Storage	Store all reagents at 2-8 degree C
Molecular Weight	115,201 Da
Chromosome Location	Chromosome: 2; NC_000002.11 (203241050..203432474). Location: 2q33-q34
OMIM	178600
3D Structure	ModBase 3D Structure for Q13873
Related Product Information for BMPR2 elisa kit	MBS006166 is a ready-to-use microwell, strip-or-full plate ELISA (enzyme-linked immunosorbent assay) Kit for analyzing the presence of the Bone Morphogenetic Protein Receptor II (BMPR2) ELISA Kit target analytes in biological samples. The concentration gradients of the kit standards or positive controls render a theoretical kit detection range in biological research samples containing BMPR2. The ELISA analytical biochemical technique of the MBS006166 kit is based on BMPR2 antibody-BMPR2 antigen interactions (immunosorbency) and an HRP colorimetric detection system to detect BMPR2 antigen targets in samples. The ELISA Kit is designed to detect native, not recombinant, BMPR2. Appropriate sample types may include undiluted body fluids and/or tissue homogenates, secretions. Quality control assays assessing reproducibility identified the intra-assay CV (%) and inter-assay CV(%).
Other Notes	Small volumes of BMPR2 elisa kit 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.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for BMPR2. It may not necessarily be applicable to this product.

NCBI GI #	15451916
NCBI GeneID	659
NCBI Accession #	NP_001195.2
UniProt Primary Accession #	Q13873
UniProt Secondary Accession #	Q16569; Q4ZG08; Q53SA5; Q585T8
UniProt Related Accession #	Q13873
GenBank Nucleotide #	NM_001204.6
NCBI Official Full Name	bone morphogenetic protein receptor type-2
NCBI Official Synonym Full Names	bone morphogenetic protein receptor, type II (serine/threonine kinase)
NCBI Official Symbol	BMPR2
NCBI Official Synonym Symbols	BMR2; PPH1; BMPR3; BRK-3; T-ALK; BMPR-II

UniProt Protein Name	Bone morphogenetic protein receptor type-2
UniProt Synonym Protein Names	Bone morphogenetic protein receptor type II
Protein Family	Bone morphogenetic protein receptor
UniProt Gene Name	BMPR2
UniProt Synonym Gene Names	PPH1; BMP type-2 receptor; BMPR-2; BMP type II receptor; BMPR-II
UniProt Entry Name	BMPR2_HUMAN
NCBI Protein Information	bone morphogenetic protein receptor type-2; BMPR-2; BMP type-2 receptor; BMP type II receptor; type II activin receptor-like kinase; bone morphogenetic protein receptor type II; type II receptor for bone morphogenetic protein-4
NCBI Summary for BMPR2	This gene encodes a member of the bone morphogenetic protein (BMP) receptor family of transmembrane serine/threonine kinases. The ligands of this receptor are BMPs, which are members of the TGF-beta superfamily. BMPs are involved in endochondral bone formation and embryogenesis. These proteins transduce their signals through the formation of heteromeric complexes of two 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. Mutations in this gene have been associated with primary pulmonary hypertension, both familial and fenfluramine-associated, and with pulmonary venoocclusive disease. [provided by RefSeq, Jul 2008]
UniProt Comments for BMPR2	BMPR2: a serine/threonine-protein kinase receptor for bone morphogenetic protein (BMP). Binds to BMP-7, BMP-2 and, less efficiently, BMP-4. Binding is weak but enhanced by the presence of type I receptors for BMPs. 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. Defects in BMPR2 are the cause of primary pulmonary hypertension (PPH1), a weakly penetrant dominant disorder, associated with lesions in pulmonary arterioles, elevated pulmonary arterial pressure, and right ventricular failure. Protein type: EC 2.7.11.30; Kinase, protein; Cell cycle regulation; Protein kinase, TKL; Membrane protein, integral; Protein kinase, Ser/Thr (receptor); TKL group; STKR family; Type2 subfamily Chromosomal Location of Human Ortholog: 2q33-q34 Cellular Component: extracellular space; cell surface; cell soma; integral to plasma membrane; apical plasma membrane; dendrite; cytoplasm; plasma membrane; basal plasma membrane; caveola Molecular Function: transforming growth factor beta receptor activity; protein binding; growth factor binding; metal ion binding; activin receptor activity, type II; ATP binding; receptor signaling protein serine/threonine kinase activity Biological Process: limb development; transcription from RNA polymerase II promoter; regulation of lung blood pressure; activin receptor signaling pathway; protein amino acid phosphorylation; anterior/posterior pattern formation; BMP signaling pathway; proteoglycan biosynthetic process; lymphangiogenesis; transmembrane receptor protein serine/threonine kinase signaling pathway; positive regulation of BMP signaling pathway; negative regulation of systemic arterial blood pressure; chondrocyte development; positive regulation of bone mineralization; cellular response to starvation; negative regulation of vasoconstriction; regulation of cell proliferation; positive regulation of osteoblast differentiation; mesoderm formation; positive regulation of axon extension involved in axon guidance; positive regulation of endothelial cell proliferation; blood vessel remodeling; brain development; negative regulation of cell growth; vascular endothelial growth factor receptor signaling pathway; alveolus development Disease: Pulmonary Venoocclusive Disease 1, Autosomal Dominant; Pulmonary Hypertension, Primary, 1
Research Articles on BMPR2	**1.** these results further supports the role of the atlastin-1 of BMP signaling cascade in axonal maintenance and axonal degeneration, which is seen in various types of hereditary spastic paraplegia.
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