

## Recombinant Mouse BMPRIA/ALK-3 Protein (Fc & His Tag)

Catalog No. PKSM041249

**Note:** Centrifuge before opening to ensure complete recovery of vial contents.

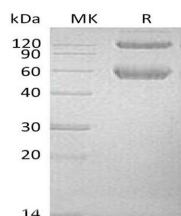
### Description

<b>Synonyms</b>	ALK-3;Bone morphogenetic protein receptor type-1A;BMP type-1A receptor;BMPR-1A;Activin receptor-like kinase 3;BMP-2/BMP-4 receptor;Serine/threonine-protein kinase receptor R5;SKR5;CD292;Acvrlk3;Bmpr;BMPR-IA
<b>Species</b>	Mouse
<b>Expression Host</b>	HEK293 Cells
<b>Sequence</b>	Gln24-Arg152
<b>Accession</b>	P36895
<b>Calculated Molecular Weight</b>	42.2 kDa
<b>Observed molecular weight</b>	55-60&120 kDa
<b>Tag</b>	C-Fc-His
<b>Bioactivity</b>	Not validated for activity

### Properties

<b>Purity</b>	> 95 % as determined by reducing SDS-PAGE.
<b>Endotoxin</b>	< 1.0 EU per µg of the protein as determined by the LAL method.
<b>Storage</b>	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
<b>Shipping</b>	This product is provided as lyophilized powder which is shipped with ice packs.
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution of 20mM PB,150mM NaCl,pH7.4. Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
<b>Reconstitution</b>	Please refer to the printed manual for detailed information.

### Data



> 95 % as determined by reducing SDS-PAGE.

### For Research Use Only

## Background

ALK-3 is a type I receptor for bone morphogenetic proteins (BMPs) which belong to the protein kinase superfamily, TKL Ser/Thr protein kinase family and TGFB receptor subfamily. The BMP receptors consists of the type I receptors BMPR1A and BMPR1B and the type I I receptor BMPR2. Seven known type I serine/threonine kinases and five mammalian type II serine/threonine kinase receptors function in TGF-beta superfamily signal transduction. The downstream molecules of the type I BMP receptors include the Smad (Smad1, 5 and 8) proteins that are phosphorylated in a ligand-dependent manner, and relay the BMP signal from the receptors to target genes in the nucleus. Type II receptors phosphorylate and activate type I receptors which autophosphorylate, then bind and activate SMAD transcriptional regulators. ALK-3 contains a GS domain and a protein kinase domain. ALK-3 is widely expressed. Defects in BMPR1A gene are a cause of a significant proportion of cases of Juvenile polyposis syndrome (JPS).

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