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

Catalog Number: PKSM041249

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

Description			
Species	Mouse		
Source	HEK293 Cells-derived Mouse BMPRIA/ALK-3 protein Gln24-Arg152, with an C-		
	terminal Fc & His		
Calculated MW	42.2 kDa		
Observed MW	55-60&120 kDa		
Accession	P36895		
Bio-activity	Not validated for activity		
Properties			
Purity	> 95 % as determined by reducing SDS-PAGE.		
Endotoxin	< 1.0 EU per µg of the protein as determined by the LAL method.		
Storage	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 $< -20^{\circ}$ C for 3 months.		
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.		
Formulation	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.		
Reconstitution	Please refer to the printed manual for detailed information.		
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Background

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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).