



Recombinant Protein Technical Manual

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

RPES0688

Product Data:

Product SKU: RPES0688

Size: 10µg

Species: Mouse

Expression host: Human Cells

Uniprot: P36895

Protein Information:

Molecular Mass: 42.2 kDa

AP Molecular Mass: 55-60&120 kDa

Tag: C-Fc-6His

Bio-activity:

Purity: > 95 % as determined by SDS-PAGE

Endotoxin: < 1.0 EU per µg as determined by the LAL method.

Storage: 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.

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.

Reconstitution: Please refer to it for detailed information.

Application:

Synonyms: ALK-3;Bone morphogenetic protein receptor typeA;BMP typeA receptor;BMPRA;Activin receptor-like kinase 3;BMP-2/BMP-4 receptor;Serine/threonine-protein kinase receptor R5;SKR5;CD292;Acvrlk3;Bmpr;BMPR-IA

Immunogen Information:

Sequence: Gln24-Arg152

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 TGF β receptor subfamily. The BMP receptors consists of the type I receptors BMPR1A and BMPR1B and the type II receptor BMPR2. Seven known type I serine/threonine kinases and five mammalian type II serine/threonine kinase receptors function in TGF- β 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).