

Product datasheet for TP727219

OriGene Technologies, Inc.

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Bmpr1a Mouse Recombinant Protein

Product data:

Product Type: Recombinant Proteins

Description: Recombinant Mouse BMP Receptor IA/ALK-3/CD292 (C-Fc-6His)

Species: Mouse

Expression cDNA Clone

or AA Sequence:

Gln24-Arg152

Tag: C-Fc&His

Buffer: Lyophilized from a 0.2 um filtered solution of 20mM PB, 150mM NaCl, pH 7.4.

Note: Recombinant Mouse Bone Morphogenetic Protein Receptor Type IA/Activin Receptor-like

Kinase 3 is produced by our Mammalian expression system and the target gene encoding

Gln24-Arg152 is expressed with a Fc, 6His tag at the C-terminus.

Stability: 12 months from date of despatch

Locus ID: 12166
UniProt ID: <u>P36895</u>

Summary: 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).

