Human BMPR1B / ALK-6 (149-502) Protein (His & GST Tag)

Catalog Number: **10460-H20B**

Sino Biological Inc.
Biological Solution Specialist

General Information

Gene Name Synonym:

ALK-6; ALK6; CDw293; Acvrlk6; AI385617; ALK-6; Alk6; AV355320; BMPR-1B; BMPR-IB; CFK-43a; SKR6

Protein Construction:

A DNA sequence encoding the human ALK6 (NP_001194.1) cytoplasmic domain (Arg 149-Leu 502) was fused with the N-terminal polyhistidine-tagged GST tag at the N-terminus.

Source: Human

Expression Host: Baculovirus-Insect Cells

QC Testing

Purity: > 90 % as determined by SDS-PAGE

Bio Activity:

Kinase activity untested

Endotoxin:

< 1.0 EU per μg of the protein as determined by the LAL method

Stability:

Samples are stable for up to twelve months from date of receipt at -70 ℃

Predicted N terminal: Met

Molecular Mass:

The recombinant human ALK6 (149-502)/GST chimera consists of 591 amino acids and has a calculated molecular mass of 68.3 KDa. It migrates as an approximately 55 KDa band in SDS-PAGE under reducing conditions.

Formulation:

Supplied as sterile 50mM Tris, 100mM NaCl, pH 8.5, 20% gly, 0.3mM DTT

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:

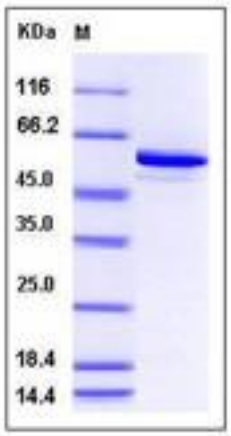
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

BMPR1B(bone morphogenetic protein receptor, type IB), also known as ALK6, is a a member of the bone morphogenetic protein (BMP) receptor family. BMPs are involved in endochondral bone formation and embryogenesis. These proteins transduce their signals through the formation of heteromeric complexes of 2 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. BMPR1B is the major transducer of signals in precartilaginous condensations as demonstrated in experiments using constitutively active BMPR1B receptors. BMPR1B is a more effective trasducer of GDF5 than BMPR1A. Unlike BMPR1A null mice, which die at an early embryonic stage, BMPR1B null mice are viable.

References

1.Ide H, *et al.* (1998) Assignment of the BMPR1A and BMPR1B genes to human chromosome 10q22.3 and 4q23--q24 byin situ hybridization and radiation hybrid map ping. Cytogenet. Cell Genet. 81(3-4): 285-6.
2.Mishina Y, *et al.* (2004) Bone morphogenetic protein type IA receptor signaling regulates postnatal osteoblast function and bone remodeling. J Biol Chem. 279(26): 27560-6.
3.Yoon BS, *et al.* (2005) Bmpr1a and Bmpr1b have overlapping functions and are essential for chondrogenesis in vivo. Proc Natl Acad Sci. 102(14): 5062-7.