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BMPR1B Knockout 293T Cell Line, Homozygous

Catalog No.: RM02144

Basic Information

Catalog No.
RM02144

Category
Cell Line

Parental Cell line
293T

Genotype
Knockout

Gene Information

Gene Symbol
BMPR1B

Species
Human

Gene ID
658

Swiss Prot
O00238

Synonyms
ALK-6; ALK6; AMDD; BDA1D; BDA2; CDw293

Contact

400-999-6126

cn.market@abclonal.com.cn

www.abclonal.com.cn

Background

This gene encodes a member of the bone morphogenetic protein (BMP) receptor family of transmembrane serine/threonine kinases. The ligands of this receptor are BMPs, which are members of the TGF-beta superfamily. 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. Mutations in this gene have been associated with primary pulmonary hypertension. Several transcript variants encoding two different isoforms have been found for this gene. [provided by RefSeq, Feb 2012]

Product Information

Description
BMPR1B Knockout 293T Cell Line is engineered from 293T cell line with Gene-Editing Technology.
Allele-1:31bp deletion in exon1
Allele-2:31bp deletion in exon1
Mammalian cells such as human, rat and mouse cells are normally diploid with two alleles. Homozygote: both alleles were knocked out, mRNA has no signal, no expression of proteins. Heterozygote: only one allele was knocked out, the mRNA transcript levels was decreased compared to wild type, and the protein expression levels was also lower than that of the wild type.

Packaging
1 vial parental cell line and 1 vial knockout cell line

Shipping Conditions
Dry ice

Amount
1~5x10^6 cells/vial

Storage
Store at -20℃

Protocol
Upon arrival, it should be maintained in DMEM medium with 10%(v/v) fetal bovine serum and 100U penicillin-streptomycin, at 37℃ with 5% CO_2 condition.
1. Thaw the vial in 37℃ water bath ,and shake it to melt as soon as possible.
2. Transfer the cell suspension to a 15mL conical tube with pre-warmed 5mL complete medium and centrifuge 1000rpm for approximately 5 minutes at room temperature.
3. Remove and discard the supernatant.
4. Resuspend the cell pellet with 1mL pre-warmed complete medium and seed in 10cm dish.
5. Add 8-10mL of complete medium.
6. Incubate the culture at 37℃ incubator with 5% CO_2.
7. A subcultivation ratio of 1:2-1:4 is recommended.

Sequencing data

WT CCCCACCCCCCGTC**********TTGTCCAGAAGACT
Mut CCCCACCCCCCGTC***Deletion***TTGTCCAGAAGACT
Allele-1: 31bp deletion in exon1

WT CCCCACCCCCCGTC**********TTGTCCAGAAGACT
Mut CCCCACCCCCCGTC***Deletion***TTGTCCAGAAGACT
Allele-2: 31bp deletion in exon1

Genome sequence analysis of PCR products from parental (WT) and BMPR1B knockout (KO) 293T cells, using sanger sequencing.