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MAPK14 Knockdown HeLa Cell Line, Heterozygous

Catalog No.: RM01883

Basic Information

Catalog No.
RM01883

Category
Cell Line

Parental Cell line
HeLa

Genotype
Knockdown

Gene Information

Gene Symbol
MAPK14

Species
Human

Gene ID
1432

Swiss Prot
Q16539

Synonyms
CSBP; CSBP1; CSBP2; CSPB1; EXIP; Mxi2; PRKM14; PRKM15; RK; SAPK2A; p38; p38ALPHA

Contact

400-999-6126

cn.market@abclonal.com.cn

www.abclonal.com.cn

Background

The protein encoded by this gene is a member of the MAP kinase family. MAP kinases act as an integration point for multiple biochemical signals, and are involved in a wide variety of cellular processes such as proliferation, differentiation, transcription regulation and development. This kinase is activated by various environmental stresses and proinflammatory cytokines. The activation requires its phosphorylation by MAP kinase kinases (MKKs), or its autophosphorylation triggered by the interaction of MAP3K7IP1/TAB1 protein with this kinase. The substrates of this kinase include transcription regulator ATF2, MEF2C, and MAX, cell cycle regulator CDC25B, and tumor suppressor p53, which suggest the roles of this kinase in stress related transcription and cell cycle regulation, as well as in genotoxic stress response. Four alternatively spliced transcript variants of this gene encoding distinct isoforms have been reported. [provided by RefSeq, Jul 2008]

Product Information

Description
MAPK14 Knockdown HeLa Cell Line is engineered from HeLa cell line with Gene-Editing Technology.
Allele-1:63bp deletion in exon2
Allele-2:61bp insertion and 63bp deletionin exon2
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.

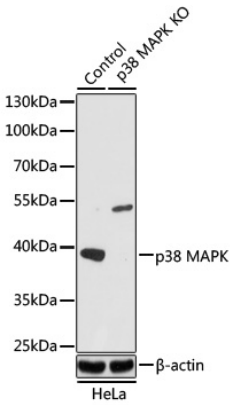
Sequencing data

WT AAAACGGGGTTACG**********AGAACTGCGGTTA
Mut AAAACGGGGTTACG***Deletion***AGAACTGCGGTTA
Allele-1: 63bp deletion in exon2

WT AAAACGGG **********GAGAACTGCG
Mut AAAACGGG*Insertion****Deletion***GAGAACTGCG
Allele-2: 61bp Insertion and 63bp deletion in exon2

Genome sequence analysis of PCR products from parental (WT) and MAPK14 knockdown (KD) HeLa cells, using sanger sequencing.

WB data



Western blot analysis of extracts from parental (Control) and MAPK14 Knockdown HeLa Cell Line, using MAPK14 antibody at 1:1000 dilution.