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MMP9 Knockout 293T Cell Line, Homozygous

Catalog No.: RM01811

Basic Information

Catalog No.
RM01811

Category
Cell Line

Parental Cell line
293T

Genotype
Knockout

Background

Proteins of the matrix metalloproteinase (MMP) family are involved in the breakdown of extracellular matrix in normal physiological processes, such as embryonic development, reproduction, and tissue remodeling, as well as in disease processes, such as arthritis and metastasis. Most MMP's are secreted as inactive proproteins which are activated when cleaved by extracellular proteinases. The enzyme encoded by this gene degrades type IV and V collagens. Studies in rhesus monkeys suggest that the enzyme is involved in IL-8-induced mobilization of hematopoietic progenitor cells from bone marrow, and murine studies suggest a role in tumor-associated tissue remodeling.

Gene Information

Gene Symbol
MMP9

Species
Human

Gene ID
4318

Swiss Prot
P14780

Synonyms
CLG4B; GELB; MANDP2; MMP-9

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Product Information

Description
MMP9 Knockout cell line is engineered from 293T cell line with Gene-Editing Technology.
Allele-1:98bp deletion in exon2
Allele-2:98bp deletion in 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
Stored in liquid nitrogen for a long time less than -130℃. Minimizing freeze-thaw cycles.

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

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WT    TGGAGAGTCGAAAT**************TGCGGGGTCCCAGA
Mut   TGGAGAGTCGAAAT***Deletion***TGCGGGGTCCCAGA
Allele-1: 98bp deletion in exon2
WT    TGGAGAGTCGAAAT**************TGCGGGGTCCCAGA
Mut   TGGAGAGTCGAAAT***Deletion***TGCGGGGTCCCAGA
Allele-2: 98bp deletion in exon2
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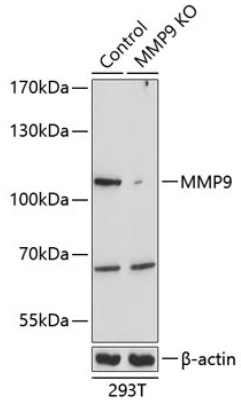
Genome sequence analysis of PCR products from parental (WT) and MMP9 knockout (KO) 293T cells, using sanger sequencing.

WB data



Western blot analysis of extracts from parental (Control) and MMP9 knockout (KO) 293T cells, using MMP9 antibody at 1:1000 dilution.