

MMP2 Knockout 293T Cell Lysate, Homozygous

Catalog No.: RM50086

Basic Information

Catalog No.

RM50086

Category

Cell Lysate

Parental Cell line

293T

Genotype

Knockout

Gene Information

Gene Symbol

MMP2

Species

Human

Gene ID

4313

Swiss Prot

P08253

SynonymsCLG4; MONA; CLG4A; MMP-2; TBE-1;
MMP-II; MMP2

Contact

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Background

This gene is a member of the matrix metalloproteinase (MMP) gene family, that are zinc-dependent enzymes capable of cleaving components of the extracellular matrix and molecules involved in signal transduction. The protein encoded by this gene is a gelatinase A, type IV collagenase, that contains three fibronectin type II repeats in its catalytic site that allow binding of denatured type IV and V collagen and elastin. Unlike most MMP family members, activation of this protein can occur on the cell membrane. This enzyme can be activated extracellularly by proteases, or, intracellularly by its S-glutathiolation with no requirement for proteolytical removal of the pro-domain. This protein is thought to be involved in multiple pathways including roles in the nervous system, endometrial menstrual breakdown, regulation of vascularization, and metastasis. Mutations in this gene have been associated with Winchester syndrome and Nodulosis-Arthropathy-Osteolysis (NAO) syndrome. Alternative splicing results in multiple transcript variants encoding different isoforms.

Product Information

Description

MMP2 Knockout cell line is engineered from 293T cell line with Gene-Editing Technology.

Allele-1:40bp deletion in exon1

Allele-2:40bp 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 Lysate and 1 vial knockout cell Lysate

Shipping Conditions

4°C

Amount

50µL, 2µg/µL.

Storage

Lysate is stable for 12 months when stored at -20°C. Minimizing freeze-thaw cycles.

Protocol

To be used as WB control. Lysate is supplied in 1× SDS sample buffer (2% SDS, 60 mM Tris-HCl pH 6.8, 10% Glycerol, 0.02% Bromophenol blue, 60 mM beta-mercaptoethanol). Lysate should be boiled for 3 - 5 minutes before loading onto gel.

Sequencing data

WT GCGGAAGCCACGCT*****CAAGCCCAAGTGGG
Mut GCGGAAGCCACGCT***Deletion***CAAGCCCAAGTGGG
Allele-1: 40bp deletion in exon1

WT GCGGAAGCCACGCT*****CAAGCCCAAGTGGG
Mut GCGGAAGCCACGCT***Deletion***CAAGCCCAAGTGGG
Allele-2: 40bp deletion in exon1

Genome sequence analysis of PCR products from parental (WT) and MMP2 knockout (KO) 293T cells, using sanger sequencing.