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MMP2 Knockout HCT116 Cell Lysate, Homozygous

Catalog No.: RM01966

Basic Information

Catalog No.
RM01966

Category
Cell Lysate

Parental Cell line
HCT116

Genotype
Knockout

Gene Information

Gene Symbol
MMP2

Species
Human

Gene ID
4313

Swiss Prot
P08253

Synonyms
CLG4; CLG4A; MMP-2; MMP-II; MONA; TBE-1

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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, intracellulary 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. [provided by RefSeq, Oct 2014]

Product Information

Description
MMP2 Knockout HCT116 Cell Line is engineered from HCT116 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℃

Amount
50μL, 2μg/μL.

Storage
Lysate is stable for 12 months when stored at -20℃. 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

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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
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Genome sequence analysis of PCR products from parental (WT) and MMP2 knockout (KO) HCT116 cells, using sanger sequencing.