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HMOX1 Knockout HeLa Cell Line, Homozygous

Catalog No.: RM01831

Basic Information

Catalog No.
RM01831

Category
Cell Line

Parental Cell line
HeLa

Genotype
Knockout

Gene Information

Gene Symbol
HMOX1

Species
Human

Gene ID
3162

Swiss Prot
P09601

Synonyms
HMOX1D; HO-1; HSP32; bK286B10

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Background

Heme oxygenase, an essential enzyme in heme catabolism, cleaves heme to form biliverdin, which is subsequently converted to bilirubin by biliverdin reductase, and carbon monoxide, a putative neurotransmitter. Heme oxygenase activity is induced by its substrate heme and by various nonheme substances. Heme oxygenase occurs as 2 isozymes, an inducible heme oxygenase-1 and a constitutive heme oxygenase-2. HMOX1 and HMOX2 belong to the heme oxygenase family.

Product Information

Description
HMOX1 Knockout cell line is engineered from HeLa cell line with Gene-Editing Technology.
Allele-1:exon2 was deleted
Allele-2:exon2 was deleted
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

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WT    AGCATGCCCCAGGA**********ATGTGGCTTGGTGG
Mut   AGCATGCCCCAGGA***Deletion***ATGTGGCTTGGTGG
Allele-1:   109bp deletion in exon2

WT    AGCATGCCCCAGGA**********ATGTGGCTTGGTGG
Mut   AGCATGCCCCAGGA***Deletion***ATGTGGCTTGGTGG
Allele-2:   109bp deletion in exon2
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Genome sequence analysis of PCR products from parental (WT) and HMOX1 knockout (KO) HeLa cells, using sanger sequencing.