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SOX2 Knockout 293T Cell Line, Homozygous

Catalog No.: RM01893

Basic Information

Catalog No.
RM01893

Category
Cell Line

Parental Cell line
293T

Genotype
Knockout

Background

This intronless gene encodes a member of the SRY-related HMG-box (SOX) family of transcription factors involved in the regulation of embryonic development and in the determination of cell fate. The product of this gene is required for stem-cell maintenance in the central nervous system, and also regulates gene expression in the stomach. Mutations in this gene have been associated with optic nerve hypoplasia and with syndromic microphthalmia, a severe form of structural eye malformation. This gene lies within an intron of another gene called SOX2 overlapping transcript (SOX2OT). [provided by RefSeq, Jul 2008]

Gene Information

Gene Symbol
SOX2

Species
Human

Gene ID
6657

Swiss Prot
P48431

Synonyms
ANOP3; MCOPS3

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Product Information

Description
SOX2 Knockout 293T Cell Line is engineered from 293T cell line with Gene-Editing Technology.
Allele-1:14bp deletion in exon1
Allele-2:14bp 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 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    GCTGGCCCCCGGCG**************AGCGGGGTCGGGGT
Mut   GCTGGCCCCCGGCG***Deletion***AGCGGGGTCGGGGT
Allele-1: 14bp deletion in exon1
WT    GCTGGCCCCCGGCG**************AGCGGGGTCGGGGT
Mut   GCTGGCCCCCGGCG***Deletion***AGCGGGGTCGGGGT
Allele-2: 14bp deletion in exon1
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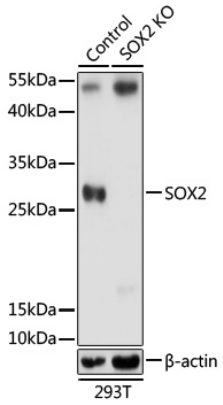
Genome sequence analysis of PCR products from parental (WT) and SOX2 knockout (KO) 293T cells, using sanger sequencing.

WB data



Western blot analysis of extracts from parental (Control) and SOX2 Knockout 293T Cell Line, using SOX2 antibody at 1:1000 dilution.