

# DAO Knockout 293T Cell Line, Homozygous

**Catalog No.:** RM02671

## Basic Information

**Catalog No.**

RM02671

**Category**

Cell Line

**Parental Cell line**

293T

**Genotype**

Knockout

## Gene Information

**Gene Symbol**

DAO

**Species**

Human

**Gene ID**

1610

**Swiss Prot**

P14920

**Synonyms**

DAAO; OXDA; DAMOX

## Contact

☎ | 400-999-6126

✉ | [cn.market@abclonal.com.cn](mailto:cn.market@abclonal.com.cn)

🌐 | [www.abclonal.com.cn](http://www.abclonal.com.cn)

## Background

This gene encodes the peroxisomal enzyme D-amino acid oxidase. The enzyme is a flavoprotein which uses flavin adenine dinucleotide (FAD) as its prosthetic group. Its substrates include a wide variety of D-amino acids, but it is inactive on the naturally occurring L-amino acids. Its biological function is not known; it may act as a detoxifying agent which removes D-amino acids that accumulate during aging. In mice, it degrades D-serine, a co-agonist of the NMDA receptor. This gene may play a role in the pathophysiology of schizophrenia.

## Product Information

**Description**

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

Allele-1:74bp deletion in exon1

Allele-2:74bp 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<sup>6</sup> cells/vial.

**Storage**

Stored in liquid nitrogen for a long time less than -130°C. 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°C with 5% CO<sub>2</sub> condition.

1. Thaw the vial in 37°C 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°C incubator with 5% CO<sub>2</sub>.
7. A subcultivation ratio of 1:2-1:4 is recommended.

## Sequencing data

---

WT CTCTGCATCCATGA\*\*\*\*\*ACGTGGCTGCCGGC  
Mut CTCTGCATCCATGA\*\*\*Deletion\*\*\*ACGTGGCTGCCGGC  
Allele-1: 74bp deletion in exon1

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

WT CTCTGCATCCATGA\*\*\*\*\*ACGTGGCTGCCGGC  
Mut CTCTGCATCCATGA\*\*\*Deletion\*\*\*ACGTGGCTGCCGGC  
Allele-2: 74bp deletion in exon1