Leader in Biomolecular Solutions for Life Science

www.abclonal.com

Furin Knockout 293F Cell Line, Homozygous

Catalog No.: RM02232

Basic Information

Catalog No.
RM02232

Category
Cell Line

Parental Cell line
293F

Genotype
Knockout

Gene Information

Gene Symbol
Furin

Species
Human

Gene ID
5045

Swiss Prot
P09958

Synonyms
FUR; PACE; PCSK3; SPC1

Contact

400-999-6126

cn.market@abclonal.com.cn

www.abclonal.com.cn

Background

This gene encodes a member of the subtilisin-like proprotein convertase family, which includes proteases that process protein and peptide precursors trafficking through regulated or constitutive branches of the secretory pathway. It encodes a type 1 membrane bound protease that is expressed in many tissues, including neuroendocrine, liver, gut, and brain. The encoded protein undergoes an initial autocatalytic processing event in the ER and then sorts to the trans-Golgi network through endosomes where a second autocatalytic event takes place and the catalytic activity is acquired. The product of this gene is one of the seven basic amino acid-specific members which cleave their substrates at single or paired basic residues. Some of its substrates include proparathyroid hormone, transforming growth factor beta 1 precursor, proalbumin, pro-beta-secretase, membrane type-1 matrix metalloproteinase, beta subunit of pro-nerve growth factor and von Willebrand factor. It is also thought to be one of the proteases responsible for the activation of HIV envelope glycoproteins gp160 and gp140 and may play a role in tumor progression. This gene is located in close proximity to family member proprotein convertase subtilisin/kexin type 6 and upstream of the FES oncogene. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Jan 2014]

Product Information

Description
Furin Knockout 293F Cell Line knockout is engineered from 293F cell line with Gene-Editing Technology.
Allele-1:56bp deletion in exon1
Allele-2:56bp 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
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

```
WT    GTCTTCACCAACAC**************ATGGGTTCCTCAAC
Mut   GTCTTCACCAACAC***Deletion***ATGGGTTCCTCAAC
Allele-1：56bp deletion in exon1
WT    GTCTTCACCAACAC**************ATGGGTTCCTCAAC
Mut   GTCTTCACCAACAC***Deletion***ATGGGTTCCTCAAC
Allele-2：56bp deletion in exon1
```

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