

# Furin Knockout 293F Cell Lysate, Homozygous

**Catalog No.: RM02378**

## Basic Information

**Catalog No.**

RM02378

**Category**

Cell Lysate

**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](mailto:cn.market@abclonal.com.cn) | [www.abclonal.com.cn](http://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 parathyroid 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 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 Lysate and 1 vial knockout cell Lysate

**Shipping Conditions**

4°C

**Amount**

50μL, 2μg/μL.

**Storage**

Lysate is stable for 12 months when stored at -20°C. 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 GTCTTCACCAACAC\*\*\*\*\*ATGGGTTCTCAAC  
Mut GTCTTCACCAACAC\*\*\*Deletion\*\*\*ATGGGTTCTCAAC  
Allele-1: 56bp deletion in exon1  
  
WT GTCTTCACCAACAC\*\*\*\*\*ATGGGTTCTCAAC  
Mut GTCTTCACCAACAC\*\*\*Deletion\*\*\*ATGGGTTCTCAAC  
Allele-2: 56bp deletion in exon1

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