

Product datasheet for **RC204279**

FURIN (NM_002569) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	FURIN (NM_002569) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	FURIN
Synonyms:	FUR; PACE; PCSK3; SPC1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide
Sequence:**

>RC204279 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGAGCTGAGGCCCTGGTTGCTATGGGTGGTAGCAGCAACAGGAACCTTGGTCCTGCTAGCAGCTGATG
 CTCAGGGCCAGAAGGTCTTCACCAACACGTGGGCTGTGCGCATCCCTGGAGGCCAGCGGTGCCAACAG
 TGTGGCACGGAAGCATGGGTTCTCAACCTGGGCCAGATCTTCGGGGACTATTACCACTTCTGGCATCGA
 GGAGTGACGAAGCGGTCCCTGTCGCTCACCGCCCGGGCACAGCCGGCTGCAGAGGGAGCCTCAAGTAC
 AGTGGCTGGAACAGCAGGTGGCAAAGCGACGGACTAAACGGGACGTGTACCAGGAGCCCACAGACCCCAA
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 GGCTACACAGGGCACGGCATTGTGGTCTCCATTCTGGACGATGGCATCGAGAAGAACCACCCGGACTTGG
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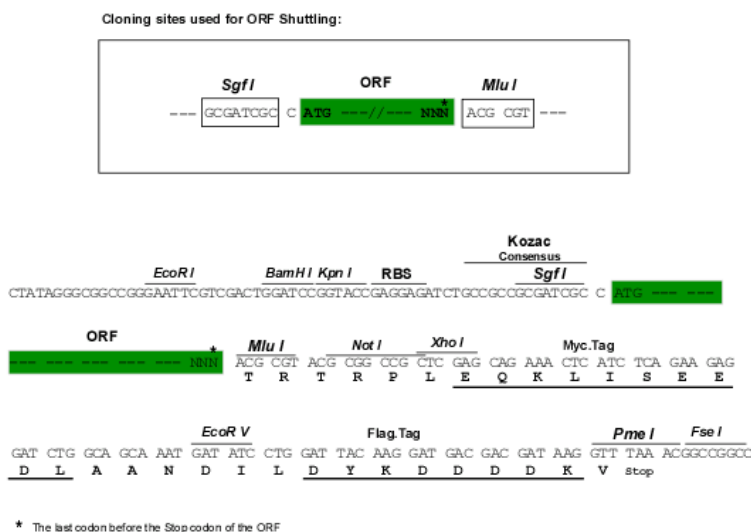
Protein Sequence: >RC204279 protein sequence
Red=Cloning site Green=Tags(s)

MELRPWLLWVVAATGTLVLLAADAQGQKVFNTWAVRIPGGPAVANSVARKHGFLNLGQIFGDYYHFWR
GVTKRSLSPHRPRHSRLQREPQVWLEQQVAKRRTKRVDVYQEPTDPKFPQQWYLSGVTQRDLNVKAAWAQ
GYTGHGIVVSILDDGIEKNHPDLAGNYDPGASFDVNDQDPDPQRYTQMNDNRHGTRCAGEVAAVANNGV
CGVGVAYNARIGGVRMLDGEVTDAVEARSLGLNPNHIHIYSASWGPEDDGKTVDGPARLAEAAFFRGVSQ
GRGGLGSIFVWASGNGGREHSCNCDGYTNSIYTLSSISSATQFGNVPWYSEACSSTLATTYSSGNQNEKQ
IVTTDLRQKCTESHTGTSASAPLAAGIIALTLEANKNL TWRDMQHLVVQTSKPAHLNANDWATNGVGRKV
SHSYGYGLLDAGAMVALAQNWTTVAPQRKCIIDILTEPKDIGKRLEVRKTVTAACLGEPNHITRLEHAQAR
LTL SYNRRGDLA IHLVSPMGTRSTLLAARPHDYSADGFNDWAFMTTHSWDEDPSGEWVLEIENTSEANNY
GTLTKFTLVLYGTAEGLPVPPESSGCKLTSSQACVVCEEGFSLHQKSCVQHCPPGFAPQVLDTHYSTE
NDVETIRASVCAPCHASCATCQGPALTDCLSCPHASLDPVEQTCSRQSQSSRESPPQQPPRLPPEVEA
GQRLRAGLLPSHLPVVAGLSCAFIVLVFVTVFLVLQLRSGFSFRGVKVVYTMDRGLISYKGLPPEAWQEE
CPSDSEDEGRGERTAFIKDQSAL

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6203_c06.zip

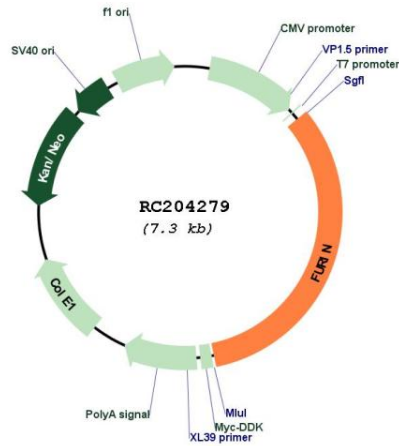
Restriction Sites: Sgfl-Mlul

Cloning Scheme:


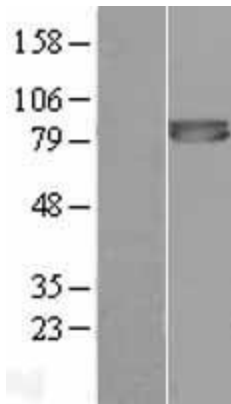
- ACCN:** NM_002569
- ORF Size:** 2382 bp
- OTI Disclaimer:** The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)
- OTI Annotation:** This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
- Components:** The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:	<ol style="list-style-type: none">1. Centrifuge at 5,000xg for 5min.2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.3. Close the tube and incubate for 10 minutes at room temperature.4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	NM_002569.1
RefSeq Size:	4251 bp
RefSeq ORF:	2385 bp
Locus ID:	5045
UniProt ID:	P09958
Cytogenetics:	15q26.1
Domains:	Peptidase_S8, P_proprotein, FU
Protein Families:	Druggable Genome, Protease, Transmembrane
MW:	86.7 kDa
Gene Summary:	<p>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. Like other members of this convertase family, the product of this gene specifically cleaves 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 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. Unlike SARS-CoV and other coronaviruses, the spike protein of SARS-CoV-2 is thought to be uniquely cleaved by this protease. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Aug 2020]</p>

Product images:



Circular map for RC204279



Western blot validation of overexpression lysate (Cat# [LY400912]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC204279 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified FURIN protein (Cat# [TP304279]). The protein was produced from HEK293T cells transfected with FURIN cDNA clone (Cat# RC204279) using MegaTran 2.0 (Cat# [TT210002]).