

## Product datasheet for **MR210693**

### Furin (NM\_001081454) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Furin (NM_001081454) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Furin
Synonyms:	9130404I01Rik; Fu; Fur; PA; PACE; Pcs; Pcsk3; SP; SPC1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>MR210693 representing NM\_001081454  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGAGCTGAGATCCTGGTTGCTATGGGTGGTTCGAGCAGCAGGAGCCGTGGTCTGCTGGCAGCTGATG  
 CTAAGGCCAGAAGATCTTACCACACACCTGGGCCGTGCACATTCTGGAGGCCAGCTGTGGCTGATAG  
 GGTGGCGCAGAAGCATGGCTTCCACAACCTGGGCCAGATCTTCGGTGACTATTACCACTTCTGGCACAGA  
 GCAGTGACAAAGCGGTCCCTGTCGCCTCACCGCCCGGGCACAGCCGGCTACAGAGGGAGCCTCAAGTAA  
 AGTGGCTGGAGCAGCAGGTAGCCAAGCGAAGAGCCAAGAGGGACGTGTATCAGGAGCCCACGGACCCCAA  
 GTTCCCCCAGCAGTGGTACCTGTCTGGTGTCACTCAGCGAGACCTGAATGTGAAGGAGCCTGGGCCAG  
 GGCTTACAGGCCATGGCATTGGTCTCCATCCTGGATGACGGCATTGAGAAGAATCATCCCGACCTAG  
 CAGGCAATTATGACCCTGGAGCCAGTTTACGCTGAATGACCAGGACCCGACCCACAGCCTCGGTACAC  
 ACAGATGAATGACAACAGGCATGGCACTCGCTGTGCCGGGAAGTGGCAGCAGTGGCCAACAATGGTGTG  
 TGTGGCGTAGGTGTAGCTTACAATGCCCAATGGAGGGGTGCGGATGTTGGATGGCGAGGTGACTGATG  
 CAGTAGAGGCACGTTTCGCTGGGCCTGAATCCCAACCACATCCACATCTACAGCGCCAGCTGGGGCCCTGA  
 GGACGACGGCAAGACCGTGGATGGACCAGCCCGGCTCGCTGAGGAGGCCCTTTTCGGGGAGTTAGCCAG  
 GGCCGAGGAGGGCTGGGCTCCATCTTTGTCTGGGCCTCAGGGAATGGGGGCCGGGAACATGACAGCTGCA  
 ACTGTGACGGCTACACCAACAGCATCTATACACTGTCCATCAGCAGCGCCACACAGTTCCGGCAATGTGCC  
 CTGGTACAGTGAGGCCTGCTCCTCCACTGGCCACCCTACAGCAGCGGCAACCAGAATGAGAAGCAG  
 ATCGTGACAACGACCTGAGGCAGAAGTGCACAGAATCTCACACAGGCACCTCGGCTTCTGCCCCCTTGG  
 CAGCTGGTATCATTGCTCACCTGAGGCCAACAAGAACCTCACCTGGCGGGACATGCAGCACCTGGT  
 AGTGCAGACCTCAAAGCCAGCCACCTCAACGCTGATGATTGGGTACCAACGGCGTGGCCGGAAAGTG  
 AGCCATTCGTATGGCTACGGGCTGTTGGATGCAGGTGCCATGGTGGCTCTGGCCAGAAGTGGACAACAG  
 TGGCCCCCAGCGGAAGTGCATTGTTGAAATCCTGGTGAACCCAAGGACATCGGCAACGGCTAGAGGT  
 GCGCAAGGCGGTGACAGCATGCCTGGGTGAGCCCAACCACATCACCAGGCTGGAACACGTTCCAGGCCGG  
 CTCACCCTGTCTTACAATCGCCGCGGTGACCTGGCTATCCACCTCATCAGCCCCATGGGCACCCGCTCCA  
 CCCTGTTAGCTGCCAGACCACATGACTACTCTGCTGATGGGTTTAAATGATTGGGCTTTCATGACAACCCA  
 TTCTGGGATGAGGATCCGGCTGGCGAATGGGTCTAGAGATTGAAAATACCAGTGAAGCCAACAACAT  
 GGGACGCTGACCAAGTTCACTCTCGTTCTGTATGGCACAGCCCCGAGGGGCTCTTACACCTCCAGAAA  
 GCAGCGGTGCAAGACCTCACATCCAGCCAGGCTGCGTGGTGTGTGAGGAAGTTACTCTCTGCCACCA  
 GAAAAGCTGTGTCCAGCACTGCCACCAGGCTTATCCCCAAGTCTTGATACACACTACAGCACTGAG  
 AATGATGTGGAGATCATCCGTGCCAGCGTCTGTACCCCTGCCACGCCTCATGTGCCACTTGCCAGGGCC  
 CGGCCCCACAGACTGCCTCAGCTGCCCGACCATGCCTCCCTGGACCCAGTGGAGCAGACCTGCTCCC  
 GCAAAGCCAGAGCAGCCGGGAGTCTCGGCTCAGCAGCAGCCTCCTGCACTGCGCCCTGAGGTGGAGATG  
 GAGCCCCGGTGCAGGCTGGGTGGCTCTCACCTGCCGAGGCTCCTGGCCGGCTCAGCTGCCTTATCA  
 TCGTGCTCATCTTTGGCATCGTCTTCTGTTCTGCATCGGTGTTCCGGGCTTCCAGTTCCGGGGAGTGAA  
 AGTGTACACCATGGACCGCGCCTCATCTCCTACAAGGGGCTGCCCTGAAGCCTGGCAGGAGGATGC  
 CCATCGGACTCAGAGGAGGACGAGGGCCGGGCGAGAGGACCGCCTTATCAAAGACCAGAGCGCCCTT

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >MR210693 representing NM\_001081454  
Red=Cloning site Green=Tags(s)

MELRSWLLWVVAAGAVVLLAADAQGQKIFTNTWAVHIPGGPAVADRVAQKHGFHNLGQIFGDYYHFWHR  
AVTKRSLSPHRPRHSRLQREPQVKWLEQQVAKRRAKRDVYQEPTDPKFPQQWYLSGVTQRDLNVKEAWAQ  
GFTGHGIVVSILDDGIEKNHPDLAGNYDPGASFDVNDQDPDPQPRYTQMNDNRHGTRCAGEVAAVANNGV  
CGVGVAYNARIGGVRMLDGEVTDAVEARSLGLNPNHIIYASWGPEDDGKTVDGPARLAEEAFFRGVSQ  
GRGGLGSIFVWASGNGGREHDSNCNCDGYTNSIYTLSSISSATQFGNVPWYSEACSSTLATTYSSGNQNEKQ  
IVTTDLRQKCTESHTGTSASAPLAAGIIALTLEANKNL TWRDMQHLVVQTSKPAHLNADDWATNGVGRKV  
SHSYGYGLLDAGAMVALAQNWTTVAPQRKCIVEILVEPKDIGKRLEVRKAVTAACLGEPNHITRLEHVQAR  
LTL SYNRRGDLA IHLISPMGTRSTLLAARPHDYSADGFNDWAFMTTHSWDEDPAGEWVLEIENTSEANNY  
GTLTKFTLVLYGTAPEGLSTPPESSGCKLTSSQACVVCEEGYSLHQKSCVQHCPPGFIPQVLDTHYSTE  
NDVEIIRASVCTPCHASCATCQGPAPTDCLSCPHASLDPVEQTCRSQSQSSRESRPQQPPALRPEVEM  
EPRLQAGLASHLPEVLAGLSCLIIIVLIFGIVFLFLHRCSGFSFRGVKVVYTMDRGLISYKGLPPEAWQECC  
PSDSEDEGRGERTAFIKDQSAL

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

**Restriction Sites:** Sgfl-MluI

**Cloning Scheme:**


- ACCN:** NM\_001081454
- ORF Size:** 2379 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:**

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.

**RefSeq:** [NM\\_001081454.2](#)

**RefSeq Size:** 4166 bp

**RefSeq ORF:** 2382 bp

**Locus ID:** 18550

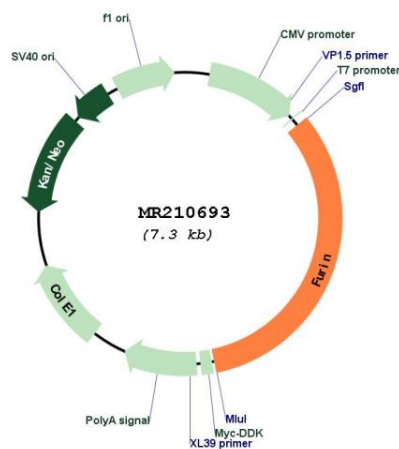
**UniProt ID:** [P23188](#)

**Cytogenetics:** 7 45.65 cM

**MW:** 87.2 kDa

**Gene Summary:** This gene encodes a calcium-dependent serine endoprotease that proteolytically activates different proprotein substrates traversing the secretory pathway. The encoded protein undergoes proteolytic autoactivation during which an N-terminal propeptide is cleaved to generate the mature protein. Mice lacking the encoded protein die at an embryonic stage and display hemodynamic insufficiency, cardiac ventral closure defect, axial rotation defect and abnormal yolk sac vasculature. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Jul 2015]

## Product images:



Circular map for MR210693