

Product datasheet for **MG210693**

Furin (NM_001081454) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Furin (NM_001081454) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Furin
Synonyms:	9130404I01Rik; Fu; Fur; PA; PACE; Pcs; Pcsk3; SP; SPC1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>MG210693 representing NM_001081454
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGAGCTGAGATCCTGGTTGCTATGGGTGGTTCGAGCAGCAGGAGCCGTTGGTCTGCTGGCAGCTGATG
 CTAAGGCCAGAAGATCTTCACCAACACCTGGGCCGTGCACATTCTGGAGGCCAGCTGTGGCTGATAG
 GGTGGCGCAGAAGCATGGCTTCCACAACCTGGGCCAGATCTTCGGTGACTATTACCACTTCTGGCACAGA
 GCAGTGACAAAGCGGTCCCTGTCGCCTCACCGCCCGGGCACAGCCGGCTACAGAGGGAGCCTCAAGTAA
 AGTGGCTGGAGCAGCAGGTAGCCAAGCGAAGAGCCAAGAGGGACGTGTATCAGGAGCCCACGGACCCCAA
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 GGCTTACAGGCCATGGCATTGGTCTCCATCCTGGATGACGGCATTGAGAAGAATCATCCCGACCTAG
 CAGGCAATTATGACCCTGGAGCCAGTTTGTACGTGAATGACCAGGACCCCGACCCACAGCCTCGGTACAC
 ACAGATGAATGACAACAGGCATGGCACTCGCTGTGCCGGGAAGTGGCAGCAGTGGCCAACAATGGTGTG
 TGTGGCGTAGGTGTAGCTTACAATGCCCAATTGGAGGGGTGCGGATGTTGGATGGCGAGGTGACTGATG
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 GGACGACGGCAAGACCGTGGATGGACCAGCCCGGCTCGCTGAGGAGGCCCTTTTCGCGGGAGTTAGCCAG
 GGCCGAGGAGGGCTGGGCTCCATCTTTGTCTGGGCCTCAGGGAATGGGGGCCGGGAACATGACAGCTGCA
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 CTGGTACAGTGAGGCCTGCTCCTCCACTGGCCACCCTACAGCAGCGGCAACCAGAATGAGAAGCAG
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 CAGCTGGTATCATTGCTCTACCCTGGAGGCCAACAAGAACCTCACCTGGCGGGACATGCAGCACCTGGT
 AGTGCAGACCTCAAAGCCAGCCACCTCAACGCTGATGATTGGGCTACCAACGGCGTGGCCGGAAAGTG
 AGCCATTCGTATGGCTACGGGCTGTTGGATGCAGGTGCCATGGTGGCTCTGGCCAGAAGTGGACAACAG
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 CTCACCCTGTCTTACAATCGCCGCGGTGACCTGGCTATCCACCTCATCAGCCCCATGGGCACCCGCTCCA
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 AATGATGTGGAGATCATCCGTGCCAGCGTCTGTACCCCTGCCACGCCTCATGTGCCACTTGCCAGGGCC
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 GAGCCCCGGTGCAGGCTGGGTTGGCCTCTCACCTGCCGAGGCTCCTGGCCGGCTCAGCTGCCTTATCA
 TCGTGCTCATCTTTGGCATCGTCTTCTGTTCTGCATCGGTGTTCCGGGCTTCCAGTTCCGGGGAGTGAA
 AGTGTACACCATGGACCGCGCCTCATCTCCTACAAGGGGCTGCCCTGAAGCCTGGCAGGAGGAGTGC
 CCATCGGACTCAGAGGAGGACGAGGGCCGGGCCGAGAGGACCGCCTTATCAAAGACCAGAGCGCCCTT

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence: >MG210693 representing NM_001081454
 Red=Cloning site Green=Tags(s)

MELRSWLLWVVAAGAVLLAADAQGQKIFTNTWAVHIPGGPAVADRVAQKHGFHNLGQIFGDYYHFWHR
 AVTKRSLSPHRPRHSRLQREPQVKWLEQQVAKRRAKRDVYQEPTDPKFPQQWYLSGVTQRDLNVKEAWAQ
 GFTGHGI VVSILDDGIEKNHPDLAGNYDPGASFVDVNDQDPDPQPRYTQMNDNRHGTRCAGEVAAVANNGV
 CGVGVAYNARIGGVRLDGEVTDAVEARSLGLNPNHIHIYSASWGPEDDGKTVDGPARLAEEAFFRGVSQ
 GRGGLGSIFVWASGNNGGREHDSNCNDGYTNSIYTLSSISSATQFGNVPWYSEACSSTLATTYSSGNQNEKQ
 IVTTDLRQKCTESHTGTSASAPLAAGIIALTLEANKNL TWRDMQHLVVQT SKPAHLNADDWATNGVGRKV
 SHSYGYGLLDAGAMVALAQNWTTVAPQRKCI VEILVEPKDIGKRLEVRKAVTACLGEPNHITRLEHVQAR
 LTL SYNRRGDLA IHLISPMGTRSTLLAARPHDYSADGFNDWAFMTTHSWDEDPAGEWVLEIENTSEANNY
 GTLTKFTLVLYGTAPEGLSTPPESSGCKLTSSQACVCEEGSYLHQKSCVQHCPPGFIPQVLDTHYTE
 NDVEIIRASVCTPCHASCATCQGPAPTDC LSCPSHASLDPVEQTC SRQSQSSRESRPQQPPALRPEVEM
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 PSDSEEDEGRGERTAFIKDQSAL

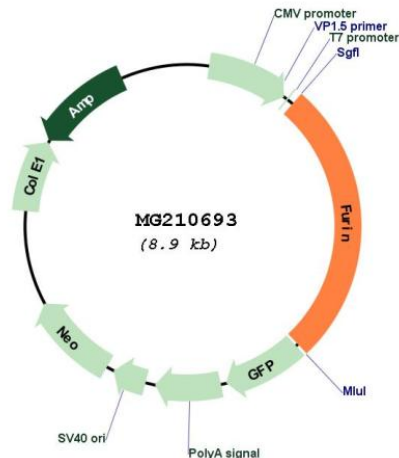
TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



Plasmid Map:


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

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]