

Product datasheet for **MG225358**

Grn (NM_008175) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Grn (NM_008175) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Grn
Synonyms:	epithelin; Pgrn
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>MG225358 representing NM_008175
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGCCTCCAGGGAGCCCGACCCGACGCAGGCAGACCATGTGGTCTGATGAGCTGGCTGGCCTTCG
 CGGCAGGGCTGGTAGCCGAACACAGTGTCCAGATGGGCAGTTCTGCCCTGTTGCCCTGCTGCCTTGACCA
 GGGAGGAGCCAACACTACAGCTGCTGTAACCTCTTCTGGACACATGGCCTAGAATAACGAGCCATCATCTA
 GATGGCTCCTGCCAGACCCATGGCCACTGCTGCTGGCTATTCTGTCTTCTCACTGTGTCTGGGACTT
 CCAGCTGCTGCCGTTCTCTAAGGGTGTGCTTGTGGTATGGCTACCACTGCTGCCCCAGGGCTTCCA
 CTGTAGTGCAGATGGAAATCCTGCTTCCAGATGTCAGATAACCCCTGGGTGCTGTCCAGTGTCTGGG
 AGCCAGTTTGAATGCTGACTCTGCCACCTGCTGCATTATGGTTGATGGTTCGTTGGGGATGTTGCCCA
 TGCCCCAGGCCTTGTGTGAAGACAGAGTGCATTGCTGTCCCATGGGGCCTCCTGTGACCTGGTTCA
 CACACGATGCGTTTACCACAGGGCACCACACCCCTACTAAAGAAGTTCCCTGCACAAAAGACCAACAGG
 GCAGTGTCTTTGCTTTTTCTGTGCTGTGCCCTGATGCTAAGACCCAGTGTCCCGATGATTCTACCTGCT
 GTGAGCTACCCACTGGGAAGTATGGCTGCTGTCCAATGCCAATGCCATCTGCTGTTCCGACCACCTGCA
 CTGCTGCCCCAGGACTGTATGTGACCTGATCCAGAGTAAGTGCCATCCAAGAATAACACCAGGAT
 TCCTGACCAAGCTGCCTGGATACCCAGTGAAGGAGGTGAAGTGCACATGGAGGTGAGCTGCCCTGAAG
 GATACCTGCTGCCGCTCAACACTGGGGCTGGGGCTGCTGTCCATTTGCCAAGGCCGTGTGTTGTGA
 GGATCACATTCATTGCTGCCCGCAGGGTTTCAAGTGTACACAGAGAAAGGAACCTGCAGAAATGGGTATC
 ATCCAAGTACCCTGGATGAAGAAGTCAAGCCCTCCGCTGCCAGACCCACAGATCTTGAAGAGTG
 CTACACCTTGTGATGACTTCACTAGGTGCTCCTACAAACAATACCTGCTGCAAACTCAATCTGGGGACTG
 GGGCTGCTGTCCCATCCCAGAGGCTGTCTGCTGCTCAGACAACCCAGCATTGCTGCCCTCAGGGCTTCA
 TGCTGGCTCAGGGTACTGTGAGAAGGGAGACACAATGGTGGCTGGCCTGGAGAAGATACCTGCCCGCC
 AGACAACCCCGCTCCAAATTGGAGATATCGGTTGTGACCAGCATAACCAGCTGCCAGTAGGGCAAACCTG
 CTGCCAAGCCTCAAGGGAAGTTGGCCTGCTGCCAGCTGCCCATGCTGTGTGCTGTGAGGACCGGCAG
 CACTGTTGCCCGCCGGGTACACCTGCAATGTGAAGGCGAGGACCTGTGAGAAGGATGTCGATTTTATCC
 AGCCTCCCGTGTCTGACCCTCGGCCCTAAGGTTGGGAATGTGGAGTGTGGAGAAGGGCATTCTGCCA
 TGATAACCAGACCTGTTGTAAGACAGTGCAGGAGTCTGGGCCTGCTGTCCCTACCTAAAGGGTGTCTGC
 TGTAGAGATGGACGTCAGTGTGCCCGGTGGCTTCCACTGTTACGCCAGGGGAACCAAGTGTTCGCAA
 AGAAGATTCTCGCTGGGACATGTTTTGAGGGATCCGGTCCCAAGACCGCTACTG

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>MG225358 representing NM_008175
 Red=Cloning site Green=Tags(s)

MPPREPGRRRQTMVLMVLAFAAGLVAGTQCPDGFQCPVACCLDQGGANYSCCNPLLDTWPRITSHHL
 DGSCQTHGHCPAGYSCLLTVSGTSSCCPFSGKGVSCGDGYHCCPQGFHCSADGKSCFQMSDNPLGAVQCPG
 SQFECPSATCCIMVDGSWGCPMPQASCCEDRVHCCPHGASCDLVHTRCVSPTGHTLLKFFPAQKTNR
 AVSLPFSVVCPDAKTQCPDDSTCCCLPTGKYGCCPMPNAICSDHLHCCPQDTVCDLIQSKLSKNYTTD
 LLTKLPGYPVKEVKCDMEVSCPEGYTCCRLNTGAWGCCPFKAVCCEDHIHCCPAGFQCHTEKGTCEMGI
 LQVPWMKKVIAPLRLPDPQILKSDTPCDDFTRCPTNNTCKLNSGDWGCCPIPEAVCCSDNQHCCPQGF
 CLAQGYCQKGDVMVAGLEKIPARQTTPLQIGDIGCDQHTSCPVGQTCCPSLKGSWACCQLPHAVCCEDRQ
 HCCPAGYTCNVKARTCEKDVDFIQPPVLLTLGPKVGNVECGEGHFCHDNQTCCCKDSAGVWACCPYLKGVG
 CRDGRHCCPGGFHCSARGTKLRKKIPRWMFLRDPVPRPLL

TRTRPLE – GFP Tag – V

Restriction Sites:

Sgfl-MluI

Cloning Scheme:


ACCN: NM_008175

ORF Size: 1806 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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).

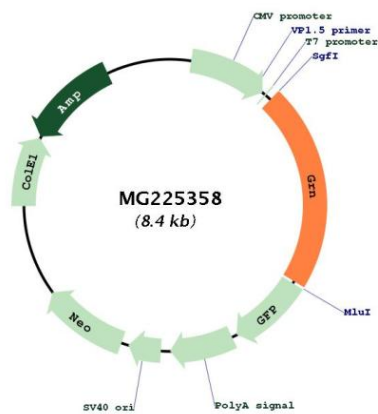
Reconstitution Method:

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_008175.4, NP_032201.2](#)
RefSeq Size: 2348 bp
RefSeq ORF: 1809 bp
Locus ID: 14824
UniProt ID: [P28798](#)
Cytogenetics: 11 66.29 cM

Gene Summary: Secreted proteins that act as key regulator of lysosomal function and as a growth factor involved in inflammation, wound healing and cell proliferation (PubMed:28073925, PubMed:8496151, PubMed:28541286, PubMed:28453791, PubMed:20026663, PubMed:23041626, PubMed:27789271, PubMed:12524533). Functions as regulator of proteins trafficking to lysosome and activity of lysosomal enzymes (PubMed:28453791, PubMed:28541286, PubMed:27789271). Facilitates also the acidification of lysosomes, causing degradation of mature CTSD by CTSB (PubMed:28073925). In addition, functions as wound-related growth factor that acts directly on dermal fibroblasts and endothelial cells to promote division, migration and the formation of capillary-like tubule structure (PubMed:12524533). Also promotes epithelial cell proliferation by blocking TNF-mediated neutrophil activation preventing release of oxidants and proteases (PubMed:8496151). Moreover, modulates inflammation in neuron by preserving neuron survival, axonal outgrowth and neuronal integrity (PubMed:23041626, PubMed:20026663).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MG225358