

Product datasheet for **MG227108**

Psmc2 (NM_011188) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Psmc2 (NM_011188) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Psmc2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>MG227108 representing NM_011188
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGTCCAGGGAACCGCGCCCGGGCGCGGAGCTACTTCCGGTGGGGAAGAGAAAGGGAAGACACCAGCGG
 AAGCGGGAAGGTGCTGTGTAATCACCGAGACCGGAGGCACTTGC GGCTTCTAAAATGCCGGATTACCT
 AGGTGCGGACCAGCGGAAAACAAAGAGAGGAGAAGGACGACAAGCCATCCGAGCTCTGGATGAAGGG
 GATATTGCCTTGCTGAAAACCTACGGCCAAAGTACTTATTCAAGGCAGATCAAGCAGGTTGAAGATGACA
 TTCAACAACCTTCTAAAAAAATTAATGAGCTCACTGGTATTAAAGAGTCTGACACTGGGTTGGCACCTCC
 GGCCCTCTGGGATTTGGCTGCAGACAAACAACTTCAGAGTGAACAGCCATTACAGGTGGCAAGATGT
 ACGAAGATAATCAACGCTGATTCGGAGGACCCAAAATACATCATCAATGTGAAGCAGTTTGCCAAGTTCCG
 TGGTGGATCTCAGTGATCAGGTGGCACCCTGACATTGAAGAAGGGATGAGAGTCGGTGTGGACAGAAA
 TAAATACCAAATTCACATTCCACTACCTCCTAAGATCGACCCAACAGTTACCATGATGCAGTGGAGGAA
 AAACCCGACGTCACATACAGTGATGTTGGTGGCTGAAGGAACAGATTGAGAAAATGCGAGAAAGTAGTTG
 AAACCCCTCTGCTCCATCCAGAGAGGTTTGTTAACCTTGAATCGAGCCTCCAAAGGGTGTACTGCTGTT
 TGGGCCACCAGGCACAGGCAAGACACTCTGTGCTAGGGCAGTTGCCAATCGGACTGATGCTTCTTATTG
 CGAGTTATTGGGTCTGAGCTCGTACAGAAATACGTCGGCAGGGAGCTCGAATGGTTCTGAGCTTTTTG
 AAATGGCCAGGACAAAAAAGCCTGCCTTATTTCTTTGATGAAATTGATGCCATTGGAGGGGCTCGGTT
 TGACGATGGCGCTGGGGGTGACAATGAAGTGCAGAGAACCATGCTGGAGCTCATCAATCAGCTGGATGGC
 TTTGATCCTCGCGCAACATCAAGGTGCTCATGGCCACTAACCGCCCTGACACTTGACCCAGCGCTCA
 TGAGACCGGGGAGGCTGGACAGGAAGATTGAGTTCAGCTTACCTGACTTAGAGGGTGAACGCACATCTT
 TAAGATTCACGCTCGCTCAATGAGTGTGGAAGAGACATTTCGATTTGAGCTGTTGGCCCGCTGTGTCCA
 AACAGTACTGGAGCGGAGATTAGAAGTGTTCACAGAAGCTGGTATGTTTGCAATCCGAGCAGGAGAA
 AAATTGCTACAGAGAAGGACTTCTTAGAAGCTGTAATAAGGTCAATCAAGTCTTACGCCAAATTCAGCGC
 TACTCCCCGCTACATGACATACAAT

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>MG227108 representing NM_011188
 Red=Cloning site Green=Tags(s)

MSREPAPGRGATSGGEEKGKTPAEAGKVLNHRDAEALAASKMPDYL GADQRKTKEEEKDDKPIRALDEG
 DIALLKTYGQSTYSRQIKQVEDDIQQLLKKINELTGIKESDTGLAPPALWDLAADKQTLQSEQLQVARC
 TKIINADSEDPKYIINVKQFAKFVVDLSDQVAPTDIEEGMRVGVDRNKYQIHIPLPPKIDPTVTMMQVEE
 KPDVTYSVDVGGCKEQIEKLREVVETPLLHPERFVNLGIEPPKGVLLFGPPGTGKTL CARAVANRTDACFI
 RVIGSELVQKYVGE GARMVREL FEMARTKKA CLIFFDEIDAIGGARFDDGAGGDNEVQRTMLELINQLDG
 FDPGRNIKVL MATNRPDTLDPALMRPGRDRKIEFSLPDLEGRTHIFKIHARMSVERDIRFELLARLCP
 NSTGAEIRSVCTEAGMFAIRARRKIATEKDFLEAVNKVIKSYAKFSATPRMYTYN

TRTRPLE – GFP Tag – V

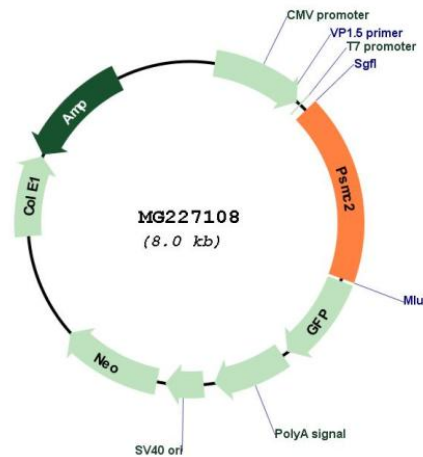
Restriction Sites:

Sgfl-Mlul

Cloning Scheme:



Plasmid Map:



ACCN: NM_011188

ORF Size: 1425 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_011188.3](#), [NP_035318.1](#)

RefSeq Size: 1782 bp

RefSeq ORF: 1428 bp

Locus ID: 19181

UniProt ID: [P46471](#)

Cytogenetics: 5 9.97 cM

Gene Summary: Component of the 26S proteasome, a multiprotein complex involved in the ATP-dependent degradation of ubiquitinated proteins. This complex plays a key role in the maintenance of protein homeostasis by removing misfolded or damaged proteins, which could impair cellular functions, and by removing proteins whose functions are no longer required. Therefore, the proteasome participates in numerous cellular processes, including cell cycle progression, apoptosis, or DNA damage repair. PSMC2 belongs to the heterohexameric ring of AAA (ATPases associated with diverse cellular activities) proteins that unfolds ubiquitinated target proteins that are concurrently translocated into a proteolytic chamber and degraded into peptides.[UniProtKB/Swiss-Prot Function]