

Product datasheet for **MG210127**

Capn2 (NM_009794) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Capn2 (NM_009794) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Capn2
Synonyms:	AI326419; Capa-2; Capa2; m-calpain; m-calpin
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide
Sequence:

>MG210127 representing NM_009794
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCCCGCATCGCC

ATGGCGGGCATCGCGATAAAGCTGGCCAAGGACCGCAAGCGGCCGAGGGGCTGGGTTCGATGAGAGAG
 CCATCAAGTACCTCAACCAGGACTACGAGACGCTGCGGAACGAGTGCCTGGAGGCCGGGGCCTCTTCCA
 GGATCCTTCCCTCCCGCCCTGCCGTATCCTTGGGCTATAAAGGAGTTGGGGCCCTACTCCAGAAAAC
 CGGGGCATCGAATGGAAGCGGCCACGGAGATCTGCGCTGACCCCAAGTTCATTATTGGAGGAGCCACCC
 GCACAGACATCTGCCAAGGAGCCCTGGGGGACTGCTGGCTGCTGGCTGCCATCGCTCCCTCACCTTGAA
 TGAGGAAATCCTGGCTCGGGTTGTGCCTCCAGATCAGAGCTTCCAGGAAAATATGCAGGCATCTCCAC
 TTCCAGTCTGGCAATATGGCGAGTGGGTGGAGGTGGTGGTGGACGACAGGCTGCCCACTAAGGACGGG
 AGCTGCTCTTTGTGATTAGCTGAAGGGAGTGAAGTCTGGAGTGCCTTCTGGAGAAAGCTATGCCAA
 GATCAATGGGTGCTATGAAGCACTCTCAGGGGGTCCACCACGGAAGGCTTTGAAGACTTACAGGAGGC
 ATTGCTGAGTGGTATGAGCTGAGGAAGCCTCCTCCAACCTGTTCAAGATCATCCAGAAGGCTTTGGAGA
 AAGTTCTCTGCTTGGCTGCTCTATCGATATCACCAGCGCTGCAGATTCTGAGGCCGTTACGTACCGAA
 GTTGGTAAAAGGACATGCGTACTCTGTACCAGGAGCCGAGGAGGTTGAAAGTTACAGGAAGCCTGCAGAAA
 TTGATCCGCATCAGGAATCCCTGGGGACAAGTAGAGTGGACCGGGAAGTGAATGACAAATGCCCCAGCT
 GGAACACGGTTGACCCAGAAGTAAGGGCAAATCTAACCGAACGGCAGGAGGACGGAGAATTCTGGATGTC
 CTTCAAGTACTTCTGAGACACTACTCTCGCTGGAGATCTGCAACCTGACCCCGGACACCTCACCTGT
 GACTCCTATAAGAAGTGGAAACTCACAAGATGGATGGAACTGGAGGCGAGGCTCCACCGCAGGGGGCT
 GCAGGAATTACCAAATACCTTCTGGATGAACCTCAGTACCTAATTAAGCTGGAGGAAGAAGCAAGA
 TGAGGAGGATGGGGAGAGAGGCTGTACCTTCTGGTGGTCTCATCCAGAAGCACCGGCGACGGCAGAGG
 AAGATGGGCGAGGACATGCACACCATTTGGCTTCGGCATCTATGAGGTTCCAGAGGAGCTAACAGGGCAGA
 CCAACATCCACCTCGGCAAAAACTTTTCTCACAAACCCGAGCCAGGGAGCGGTGAGATACCTTCATTAA
 CCTCCGCGAGGTCCTCAACCGCTTCAAGCTGCCCCGGGAGAGTATGTCCTCGTTCCTCCACCTTCGAA
 CCCCACAAGGATGGCGATTTCTGCATCCGAGTCTTCTCGGAGAAGAAGGCTGACTACCAAGCTGTTGATG
 ACGAGATCGAGGCCAACATTGAAGAGATTGACGCCAATGAGGAGGACATTGACGATGGATTCCGAAGGCT
 CTTTGTTCAGCTGGCTGGAGAGGATGCAGAGATCTCTGCCTTTGAGCTGCAGACCATCTTAAGAAGATT
 CTAGCCAAACGCCAAGACATCAAGTCAGACGGCTTCAGCATCGAGACCTGTAAGATCATGGTGGACATGC
 TGGATGAAGATGGGAGTGGCAAGCTTGGCTGAAGGAGTTCTACATCCTCTGGACGAAGATTCAGAAATA
 CCAAAAAATCTACCGGGAATCGATGTGGACAGGCTTGAACCATGAATTCCTACGAGATGCGGAAAGCA
 CTGGAAGAAGCAGGTTTCAAGCTGCCCTGTCAACTTCAAGTCATCGTTGCCCGGTTTGCAGACGACG
 AGCTAATCATCGACTTTGACAATTTTGTGCGGTGTTTGGTCCGCTCTGGAACGCTATTCAAGATATTCAA
 GCAGCTAGACCCTGAGAACACTGGAACGATACAGCTCAACCTTGCTTCGTGGCTGAGTTTTTCAGTACTC

ACGCGTACGCGGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence: >MG210127 representing NM_009794
 Red=Cloning site Green=Tags(s)

MAGIAIKLAKDREAAEGLGSHERAIKYLNQDYETLRNECLEAGALFQDPSFPALPSSLGYKELGPYSSKT
 RGIEWKRPTICADPQFIIGGATRTDICQALGDCWLLAAIASLTLNEELARVVPDQSFQENYAGIFH
 FQFWQYGEWVEVVVDDRLPTKDGELLFVHSAEGSEFWSALLEKAYAKINGCYEALSGGATTEGFEDFTGG
 IAEWYELRKPPNLFKIIQKALEKGSLLGCSIDITSAADSEAVTYQKLVKGHAYSVTGAEEVESSGSLQK
 LIRIRNPWGQVEWTGKWNDCPSWNTVDPEVRANLTERQEDGEFWSFSDFLRHYSRLEICNLTPDTLTC
 DSYKKWKLTKMDGNWRRGSTAGGCRNYPNTFWMNPQYLKLEEEDEDEEDGERGCTFLVGLIQKHRRQR
 KMGEDMHTIGFGIYEVPEELTGQTNHLGKNFFLTTRARERSDTFINLREVLNRFKLPPEYVLPSTFE
 PHKDGDFCIRVFSEKKADYQAVDDEIEANIEEIDANEEDIDGFRRLFVQLAGEDAEISAFELQTLRRV
 LAKRQDIKSDGFSIETCKIMVDMLDEDGSGKLGKLFYILWTKIQKYQKIYREIDVDRSGTMNSYEMRKA
 LEEAGFKLPCQLHQVIVARFADDELIIDFDFVRLVRLVLETLFKIFKQLDPENTGTIQLNLASWLSFVSL

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_009794

ORF Size: 2100 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_009794.4](#)

RefSeq Size: 3205 bp

RefSeq ORF: 2103 bp

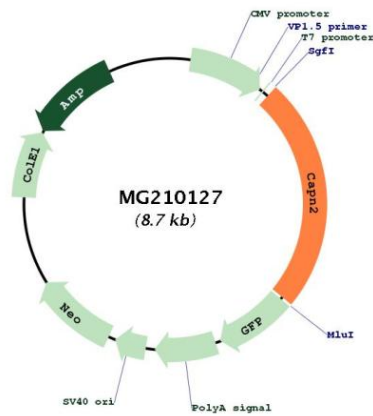
Locus ID: 12334

UniProt ID: [O08529](#)

Cytogenetics: 1 H5

Gene Summary: Calcium-regulated non-lysosomal thiol-protease which catalyzes limited proteolysis of substrates involved in cytoskeletal remodeling and signal transduction. Proteolytically cleaves MYOC at 'Arg-226' (By similarity). Proteolytically cleaves CPEB3 following neuronal stimulation which abolishes CPEB3 translational repressor activity, leading to translation of CPEB3 target mRNAs (PubMed:22711986).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MG210127