

Product datasheet for **RG237049**

CAPNS1 (NM_001302632) Human Tagged ORF Clone

Product data:

| | |
|---------------------------|--|
| Product Type: | Expression Plasmids |
| Product Name: | CAPNS1 (NM_001302632) Human Tagged ORF Clone |
| Tag: | TurboGFP |
| Symbol: | CAPNS1 |
| Synonyms: | CALPAIN4; CANP; CANPS; CAPN4; CDPS; CSS1 |
| Mammalian Cell Selection: | Neomycin |
| Vector: | pCMV6-AC-GFP (PS100010) |
| E. coli Selection: | Ampicillin (100 ug/mL) |
| ORF Nucleotide Sequence: | >RG237049 representing NM_001302632. Blue=ORF Red=Cloning site Green=Tag(s) |

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GCTCGTTTAGTGAACCGTCAGAATTTTGTAAACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTG
GATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC
ATGTTCTGGTTAACTCGTTCTTGAAGGGCGCGCGCGCGCGGGGAGCGGGGGCCTGGGTGGG
GGCCTGGGAAATGTGCTTGGAGGCTGATCAGCGGGGCCGGGGCGCGCGCGCGCGCGCGCGCGCGC
GGCGGTGGTGGAGGCGCGGTGGCGGTGGAACGGCCATGCGCATCCTAGGCGGAGTCATCAGCGCCATC
AGCGAGGCGGCTGCGCAGTACAACCCGGAGCCCCCGCCCCACGCACACATTACTCCAACATTGAGGCC
AACGAGAGTGAGGAGTCCGGCAGTTCGGGAGACTCTTTGCCAGCTGGCTGGAGATGACATGGAGGTC
AGCGCCACAGAACTCATGAACATTCTCAATAAGTTGTGACACGACACCCTGATCTGAAGACTGATGGT
TTTGGCATTGACACATGTGCGCAGCATGGTGGCCGTGATGGATAGCGACACCACAGGCAAGCTGGGCTTT
GAGGAATTCAGTACTTGTGGAACAACATCAAAAGGTGGCAGGCCATATACAAACAGTTCGACACTGAC
CGATCAGGGACATTTGCAGTAGTGAACCTCCAGGTGCCTTTGAGGCAGCAGGGTTCCACCTGAATGAG
CATCTCTATAACATGATCATCCGACGCTACTCAGATGAAAGTGGGAACATGGATTTTGACAACTTCATC
AGCTGCTTGGTCAGGCTGGACGCCATGTTCCGTGCCTTCAAATCTCTTGACAAAGATGGCACTGGACAA
ATCCAGGTGAACATCCAGGAGTGGCTGCAGCTGACTATGTATTCC
ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAAAC
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Protein Sequence: >Peptide sequence encoded by RG237049
 Blue=ORF Red=Cloning site Green=Tag(s)

MFLVNSFLKGGGGGGGGGGLGGGLGNVLGGLISGAGGGGGGGGGGGGGGGGGGTAMRILGGVISAI
 SEAAAQYNPEPPPPRTHYSNIEANESEEVRFRLFAQLAGDDMEVSATELMNILNKVVTRHPDLKTDG
 FGIDTCRSMVAVMDSDTTGLGFEEFKYLWNNIKRWQAIYKQFDTRSGTICSELPGAFEAGFHLNE
 HLYNMIIRRYSDSEGNMDFDNFISCLVRLDAMFRAFKSLDKDGTGQIQVNIQEWLQTMYS
 TRTRPLEMESDESGLPAMEIECRITGTLNGVEFELVGGGEGTPEQGRMTNKMKSTKGALTFSPYLLSHV
 MGYGFYHFGTYPSTYENPFLHAINNGGYTNTRIEKYEDGGVLHVSFSYRYEAGRVIGDFKVMGTGFPED
 SVIFTDKIIRSNAVHLPMDNDLDGSFTRTFSLRDGGYSSVVDSHMHFKSAIHPSILQNGGPMFA
 FRRVEEDHSNTELGIVEYQHAFKTPDADAGEERV

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001302632

ORF Size: 804 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).

RefSeq: [NM_001302632.2](#)

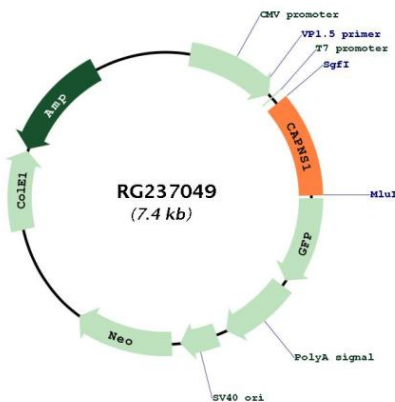
RefSeq Size: 1486 bp

RefSeq ORF: 807 bp

Locus ID: 826
UniProt ID: [P04632](#)
Cytogenetics: 19q13.12
Protein Families: Druggable Genome, Protease
MW: 28.3 kDa

Gene Summary: This gene is a member of the calpain small subunit family. Calpains are calcium-dependent cysteine proteinases that are widely distributed in mammalian cells. Calpains operate as heterodimers, comprising a specific large catalytic subunit (calpain 1 subunit in Calpain I, and calpain 2 subunit in Calpain II), and a common small regulatory subunit encoded by this gene. This encoded protein is essential for the stability and function of both calpain heterodimers, whose proteolytic activities influence various cellular functions including apoptosis, proliferation, migration, adhesion, and autophagy. Calpains have been implicated in neurodegenerative processes, such as myotonic dystrophy. A pseudogene of this gene has been defined on chromosome 1. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Oct 2014]

Product images:



Circular map for RG237049