

Product datasheet for **RG226657**

Calpain 14 (CAPN14) (NM_001145122) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Calpain 14 (CAPN14) (NM_001145122) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Calpain 14
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide
Sequence:**

>RG226657 representing NM_001145122
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGC**

ATGTCTCTGTGGCCACCTTTCCGATGCAGATGGAAGCTGGCGCCAAGGTAAGTCTAGGAGGGCGTCTCCAC
 AGCAACCCCAACAGGACTTTGAGGCCCTGCTGGCAGAGTGCCCTGAGGAATGGCTGCCTCTTTGAAGACAC
 CAGCTTCCCGGCCACCCTGAGCTCCATCGGCAGTGGCTCCCTGCTGCAGAAGCTGCCACCCCGCCTGCAG
 TGAAGAGGCCCCCGGAGCTGCACAGCAATCCCCAGTTTTATTTTCCAAGGCCAAAAGGCTGGATCTGT
 GCCAGGGGATAGTAGGAGACTGCTGGTTCTTGGCTGCTTTGCAAGCTCTGGCCTTGACACAGGACATCCT
 GAGCCGGGTTGTTCCCTGAATCAGAGTTTCACTGAGAAGTATGCTGGCATCTCCGGTTCTGGTTCTGG
 CACTATGGGAAGTGGGTTCTGTGGTGATCGATGACCGTCTGCCTGTGAATGAGGCTGGCAGCTGGTCT
 TTGTCTCTCCACCTATAAGAACTTGTCTGGGAGCACTTCTGAAAAGGCCTATGCCAAGCTCTCTGG
 TTCCTATGAAGACTTGCAGTCAGGACAGGTGTCTGAAGCCCTGTAGACTTCACTGGAGGGGTGACAATG
 ACCATCAACCTGGCAGAAAGCCATGGCAACCTCTGGGACATCCTCATCGAAGCCACTACAACAGAACCC
 TCATTGGCTGCCAGACCCACTCAGGGGAGAAGATTCTGGAGAATGGGCTGGTGAAGGCCATGCCTATAC
 TCTCACAGGAATCAGGAAGGTGACCTGCAACATAGACCTGAATATCTCGTCAAGCTACGGAACCCCTGG
 GGAAAGGTGGAATGGAAGGAGACTGGAGTGACAGTTCAAGTAAATGGGAGCTGCTGAGCCCCAAGGAGA
 AGATTCTGCTTCTGAGGAAAGACAATGACGGAGAATTCTGGATGACGCTGCAGGACTTTAAACACATTT
 CGTGCTCCTGGTTATCTGTAACTGACCCAGGCTGTTGAGCCAGGAGGCGGCCAGAAGTGGACGTAC
 ACCATGCGGGAGGGGAGATGGGAGAAGCGGAGCACAGCTGGTGGCAGAGGCAGTTGCTGCAGGACACAT
 TTTGGAAGAACCAGCAGTTCTGCTGTCTGTCTGGAGGCCGAGGAGGGCAGGAGATCCCTGAGGCCCTG
 CAGCGTGCTGGTGTCCCTGCTCCAGAAGCCAGGCACAGGTGCCGCAAGCGGAAGCCTCTCCTCGCCATT
 GGCTTCTACCTGTATAGGATGAACAAGTACCATGATGACCAGAGGAGACTGCCCCCTGAGTTCTTCCAGA
 GAAACACTCCTCTGAGCCAGCCTGATAGGTTTCTCAAGGAGAAAGAGTGAAGTCAAGGAGCTGTGTCTGGA
 ACCAGGGACGTACCTCATCGTCCCTGCATATTGGAGGCCACCAGAAGTCAAGTTCGTCCTCAGGGTC
 TTCTCCAGGAAGCACATCTTTATGAAATTGGCAGCAATTCTGGTGTCTCTCTCAAAGGAGATAGAAG
 ACCAAAATGAAAGGCAGGATGAATTCTTACCAAATTCTTTGAAAAGCATCCAGAGATTAATGCAGTTCA
 ACTTCAGAACCTCCTGAACCAGATGACCTGGTCAAGTCTGGGAGCAGACAGCCCTTCTTTAGCCTGGAA
 GCCTGCCAGGGGATCCTGGCCTTACTGGACCTTAATGCATCAGGTAATGAGCATCCAGGAATTCAGGG
 ACCTGTGGAAGCAGCTGAAGCTCTCTCAGAAGGTTTTCCACAAGCAAGACCGTGGGTGAGGATACCTGAA
 CTGGGAGCAGCTGCACGCTGCCATGAGGGAGGCAGGAATCATGCTCAGTGATGACGTCTGTGAGCTGATG
 CTCATCCGCTACGGCGGCCCGCCCTCCAGATGGACTTTGTGAGTTTCATCCACTTGATGCTGCGTGTAG
 AGAACATGGAGGATGTCTTCCAAAACCTAACCCAAGATGGCAAAGGGATATACCTCCAGAAGCCAGAGTG
 GATGATGATGGCACTGTACTCC

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence: >RG226657 representing NM_001145122
Red=Cloning site Green=Tags(s)

MSLWPPFRCRWKLAPRYSRRASPQQPQQDFEALLAECLRNGLFEDTSFPATLSSIGSGSLLQKLPRLQ
 WKRPELHNSNPQFYFAKAKRLDLCQIGVGCWFLAALQALAHQDILSRVPLNQSFTEKYAGIFRFWF
 HYGNWVPVVIDRPLVNEAGQLVFVSSTYKNLFWGALLEKAYAKLSGSYEDLQSGQVSEALVDF
 TGGVTM
 TINLAEAHGNLWDILIEATYNRTLIGCQTHSGEKILENGLVEGHAYTLTGIRKVTCKHRPEYL
 VKLRNPW
 GKVEWKGDWSDSSSKWELLSPKEKILLRKDNDGEFWMTLQDFKTHFVLLVICKLTPGLLSQEA
 AQKWTY
 TMREGRWEKRSTAGGQRQLLQDTFWKNPQFLLSVWRPEEGRRSLRPCSVLVSLQKPRHRCR
 KRKPLLAI
 GFYLYRMNKYHDDQRRLPPEFFQRNTPLSQPDRFLKEKEVSQELCLEPGTYLIVPCILEAHQK
 SEFVLRV
 FSRKHIFYEIGSNSGVVFSKEIEDQNERQDEFFTKFEKHPEINAVQLQNLLNQMTWSSLGSRQ
 PFFSLE
 ACQGILALLDLNASGTMSIQEFRDLWKQLKLSQKVFBKQDRSGYLNWEQLHAAMREAGIMLS
 DDVCQLM
 LIRYGGPRLQMDFVSFIHLMLRVENMEDVFQNLQDQGGKIYLPKEWMMMALYS

TRTRPLE – GFP Tag – V

Restriction Sites:

SgfI-MluI

Cloning Scheme:



ACCN: NM_001145122

ORF Size: 2052 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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM_001145122.2](#)

RefSeq Size: 3841 bp

RefSeq ORF: 2055 bp

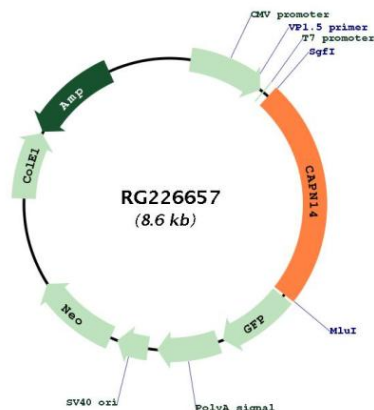
Locus ID: 440854

UniProt ID: [A8MX76](#)

Cytogenetics: 2p23.1

Gene Summary: Calpains are a family of cytosolic calcium-activated cysteine proteases involved in a variety of cellular processes including apoptosis, cell division, modulation of integrin-cytoskeletal interactions, and synaptic plasticity (Dear et al., 2000 [PubMed 10964513]). CAPN14 belongs to the calpain large subunit family.[supplied by OMIM, Mar 2008]

Product images:



Circular map for RG226657