

Product datasheet for **SC314485**

Calpastatin (CAST) (NM_001750) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Calpastatin (CAST) (NM_001750) Human Untagged Clone
Tag:	Tag Free
Symbol:	Calpastatin
Synonyms:	BS-17; PLACK
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL4</u>
E. coli Selection:	Ampicillin (100 ug/mL)



[View online »](#)

Fully Sequenced ORF:

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>OriGene ORF sequence for NM_001750 edited
ATGTCCCAGCCCGGCCAGAAAGCCCGCCGCTCCCCGCGGCCCGGCGAGCAGCCCGCC
CGCCGCACCCATGAGCATGTCAGTGA AAAAACCAAGTGAATCGCCTTCAAACCAGGAGAA
AAGAAAGGATCAGATGAGAAAAAGCAGCAAGCCTCGGCAGCAGTCAATCCTCCAGAACC
TATGCTGGTGGAACAGCCTCGGCCACCAAGGTGTAGCTTCTCTGGTGAACCAAGCAAG
TCTTCCAGTATGAATCCACAGAAAAACCAAGGCCATTCCAGTCAGCCAACAGATGGAAGGA
CCACATCTTCTAACAAAGAAAAACACAAAAACAGGCTGTAAAAACAGAACCTGAGAAG
AAGTCACAGTCAACCAAGCTGTCTGTGGTTCATGAGAAAAATCCAAGAAGGAAAGCCA
AAAGAACACACAGAGCCAAAAAGCCTACCCAAGCAGGCATCAGATACAGGAAGTAAACGAT
GCTCACAATAAAAAAGCAGTTTCCAGATCAGCTGAACAGCAGCCATCAGAGAAATCAACA
GAACCAAAGACTAAACCACAAGACATGATTTCTGCTGGTGGAGAGAGTGTGCTGGTATC
ACTGCAATATCTGGCAAGCCGGGTGACAAGAAAAAGAAAAAGAAATCATTAACCCAGCT
GTGCCAGTTGAATCTAAACCGGATAAACCATCGGGAAAGTCAGGCATGGATGCTGCTTTG
GATGACTTAATAGATACTTTAGGAGGACCTGAAGAACTGAAGAAGAAAAACAACGTAT
ACTGGACCAGAAGTTTCAGATCCAATGAGTTCCACCTACATAGAGGAATTGGGTAAGA
GAAGTCACAATTCCTCCAAAATATAGGGAATATTGGCTAAAAAGGAAGGGATCACAGGG
CCTCCTGCAGACTCTTCGAAACCCATAGGGCCAGATGATGCTATAGACGCCTTGTATCT
GACTTCACCTGTGGGTCGCTACAGCTGCTGGAAGAAAACTGAAAAAGAGGAATCTACA
GAAGTTTTAAAGCTCAGTCATCAGGGACAGTCAGAAGTCTGCTCCACCCCAAGAGAAG
AAAAGAAAGGTGGAGAAGGATACAATGAGTGATCAAGCACTCGAGGCTCTGTCGGCTTCA
CTGGGCACCCGGCAAGCAGAACCTGAGCTCGACCTCCGCTCAATTAAGGAAGTCGATGAG
GCAAAAAGCTAAAGAAGAAAACTAGAGAAGTGTGGTGGAGATGATGAAACAATCCCATCT
GAGTACAGATTA AAAACCAGCCACGGATAAAGATGGAAAACCACTATTGCCAGAGCCTGAA
GAAAAACCCAAGCCTCGGAGTGAATCAGAACTCATTGATGAACTTTCAGAAGATTTTGAC
CGGTCTGAATGTAAGAGAAACCATCTAAGCCAACTGAAAAGACAGAAGATCTAAGGCC
GCTGCTCCAGCTCCTGTGTGCGGAGGCTGTGTGTCGGACCTCCATGTGTAGTATACAGTCA
GCACCCCTGAGCCGGCTACCTTGAAGGGCACAGTGCCAGATGATGCTGTAGAAGCCTTG
GCTGATAGCCTGGGGAAAAAGGAAGCAGATCCAGAAGATGGAAAACCTGTGATGGATAAA
GTCAAGGAGAAGGCCAAAGAAGAAGACCGTGAAAAGCTTGGTAAAAAGAAAGAAACAATT
CCTCCTGATTATAGATTAGAAGAGGTCAAGGATAAAGATGGAAAAGCCACTCCTGCCAAAA
GAGTCTAAGGAACAGCTCCACCCATGAGTGAAGACTTCTTTCTGGATGCTTTGTCTGAG
GACTTCTCTGGTCCACAAAATGCTTCATCTCTTAATTTGAAGATGCTAAACTTGTCTGCT
GCCATCTCTGAAGTGGTTTCCAAAACCCAGCTTCAACGACCCAAGCTGGAGCCCCACCC
CGTGATACCTCGCAGAGTGACAAAGACCTCGATGATGCCTTGGATAAACTCTCTGACAGT
CTAGGACAAAGGCAGCCTGACCCAGATGAGAACAACCAATGGAAGATAAAGTAAAGGAA
AAAGCTAAAGCTGAACATAGAGACAAGCTTGGAGAAAGAGATGACACTATCCCACCTGAA
TACAGACATCTCCTGGATGATAATGGACAGGACAAACCAAGTGAAGCCACCTACAAAGAAA
TCAGAGGATTCAAAGAAACCTGCAGATGACCAAGACCCCAATTGATGCTCTCTCAGGAGAT
CTGGACAGCTGTCCCTCCACTACAGAAACCTCACAGAACACAGCAAAGGATAAGTGCAAG
AAGGCTGCTTCCAGCTCCAAAGCACCTAAGAATGGAGGTAAAGCGAAGGATTACAGCAAAG
ACAACAGAGGAAACTTCCAAGCCAAAAGATGACTAA
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5' Read Nucleotide Sequence:	<p>>OriGene 5' read for NM_001750 unedited</p> <pre>GGCAACGGAGATTTTGTATACGACTCACTTAGGGCGGCCGGAATTCGGCACGAGCCTCC CTCTCTCCCTGGCAGGACTCCCCGCCAGGCCTCCCCGCCACTCTCCGCGGCGCATTCCGG GAGGCAGCGGCCGAGCGGCCTCGCCATGTCCCAGCCCGCCAGAAGCCCGCCGCTCCC CGCGGCCCGGCGAGCAGCCGCCCGCCCGCCGACCCATGAGCATGTCAGTGAAAAACCA GTGAATCGCCTTCAAACAGGAGAAAAAGGATCAGATGAGAAAAAGCAGCAAGCC TCGGCAGCAGTCAATCTCCAGAACCTATGCTGGTGGAACAGCCTCGGCCACCAAGGTGT CAGCTTCTCTGTGTGCAACCAGCAAGTCTTCCAGTATGAATCCCACAGAAACCAAGGCCA TTCCAGTCAGCCAACAGATGGAAGGACCACATCTTCTAACAAGAAAAACACAAAAAAC AGGCTGTAAAAACAGAACCTGAGAAGAAGTCACAGTCAACCAAGCTGTCTGTGGTTCATG AGAAAAATCCCAAGAAGGAAAGCCAAAAGAACACACAGAGCCAAAAAGCCTACCCAAGC AGGCATCAGATACAGGAAGTAACGATGCTCACAATAAAAAAGCAGTTTCCAGATCAGCTG AACAGCAGCCATCAGAGAAATCAACAGAACCAAGACTAAACCCACAGACATGATNTCTG CTGGTGGAGAGAGTGTGCTGGTATCACTGCAATATCTGGCAA</pre>
3' Read Nucleotide Sequence:	<p>>Forward primer walk for NM_001750 unedited</p> <pre>AACAACCTGATGCCTTGAAAACCTCTGACAGTCTAGGACAAAAGGCAGCCTGACCCAG ATGAGAACAACCAATGGAAGATAAAGTAAAGGAAAAAGCTAAAGCTGAACATAGAGACA AGCTTGGAGAAAGAGATGACACTATCCACCTGAATACAGACATCTCTGGATGATAATG GACAGGACAAACAGTGAAGCCACCTACAAGAAATCAGAGGATCAAAGAAACCTGCAG ATGACCAAGACCCATTGATGCTCTCTCAGGAGATCTGGACAGCTGTCCCTCCACTACAG AAACCTCACAGAACACAGCAAAGGATAAGTGCAAGAAGGCTGCTTCCAGCTCCAAAGCAC CTAAGAATGGAGGTAAAGCGAAGGATTCAGCAAAGACAACAGAGGAAACTTCCAAGCCAA AAGATGACTAAAGAAATACAAGTTAAGGTATCTGGTATCTGCATGTAATACTTTCAGCTG GTGGATGGTGACTTTTGAAGAACAAAAGGCTTTGGCAACAGAAAACAATTGTTCTGGGTG ATTTCTAGAATGGTTTTTGTGAGTCTCTGAACATCCTAAAAATATTGGTTTGTATTCTT TTCCAGAAAGAAAATGAATTTGACTGGTTCACCTGTGTACTGAGTATTGATAAACTTTG AATTTTTTTAATTGCCTTCAATTTGGGAGAGAACAGCTTTATATTTGTAATAAATATATTT TGATAAAGTTTCTTAAACGCACCACCAAAAAACAAAAAAAAGCCTAAGTGAATTTTTG CACATTCTACACAGTGCCTGGAACACCCACTTGATTTACGTCCGACCTTAATTTTTTT TTGTAGCT</pre>
Restriction Sites:	NotI-NotI
ACCN:	NM_001750
Insert Size:	4500 bp
OTI Disclaimer:	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
OTI Annotation:	The open reading frame of this TrueClone was fully sequenced and found to be a perfect match to the protein associated to this reference.
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_001750.4](#), [NP_001741.3](#)

RefSeq Size: 2438 bp

RefSeq ORF: 2127 bp

Locus ID: 831

UniProt ID: [P20810](#)

Cytogenetics: 5q15

Domains: Calpain_inhib

Gene Summary: The protein encoded by this gene is an endogenous calpain (calcium-dependent cysteine protease) inhibitor. It consists of an N-terminal domain L and four repetitive calpain-inhibition domains (domains 1-4), and it is involved in the proteolysis of amyloid precursor protein. The calpain/calpastatin system is involved in numerous membrane fusion events, such as neural vesicle exocytosis and platelet and red-cell aggregation. The encoded protein is also thought to affect the expression levels of genes encoding structural or regulatory proteins. Alternatively spliced transcript variants encoding different isoforms have been described. [provided by RefSeq, Jun 2010]

Transcript Variant: This variant (1) represents the longest transcript and encodes the longest isoform (a). Sequence Note: The RefSeq transcript and protein were derived from genomic sequence to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on alignments.