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Product datasheet for SC306779

Calpastatin (CAST) (NM_173061) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Calpastatin (CAST) (NM_173061) Human Untagged Clone
Tag:	Tag Free
Symbol:	CAST
Synonyms:	BS-17; calpain inhibitor; calpastatin; heart-type calpastatin; MGC9402; OTTHUMP00000158519; OTTHUMP00000158520; sperm BS-17 component
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

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Fully Sequenced ORF:

>SC306779 representing NM_173061.
Blue=Insert sequence Red=Cloning site Green=Tag(s)

GCTCGTTTAGTGAACCGTCAGAATTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTG
GATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC
ATGGGCCAGTTTCTATCTTCGACTTTCTTGGAGGGCTCACCGGCCACAGTGTGGCACGATAAGCTTTGT
GACGGTGAACGCAGAGGAGCAAGAGAAGCAGTTCGTATCTTCCAGGACCAAGCAAAAGCTAAAGAAGAA
AAACTAGAGAAGTGTGGTGAGGATGATGAAACAATCCCATCTGAGTACAGATTAAAACCAGCCACGGAT
AAAGATGGAAAACCACTATTGCCAGAGCCTGAAGAAAAACCCAAGCCTCGGAGTGAATCAGAACTCATT
GATGAACTTTCAGAAGATTTTGACCGGTCTGAATGTAAAGAGAAACCATCTAAGCCAACTGAAAAGACA
GAAGAATCTAAGGCCGCTGCTCCAGCTCCTGTGTCGGAGGCTGTGTGTCGGACCTCCATGTGTAGTATA
CAGTCAGCACCCCCTGAGCCGGCTACCTTGAAGGGCACAGTGCCAGATGATGCTGTAGAAGCCTTGGCT
GATAGCCTGGGGAAAAAGGAAGCAGATCCAGAAGATGGAAAACCTGTGATGGATAAAGTCAAGGAGAAG
GCCAAAGAAGAAGACCGTGAAAAGCTTGGTGAAAAAGAAGAAACAATTCCTCCTGATTATAGATTAGAA
GAGGTCAAGGATAAAGATGGAAAGCCACTCCTGCCAAAAGAGTCTAAGGAACAGCTTCCACCCATGAGT
GAAGACTTCCTTCTGGATGCTTTGTCTGAGGACTTCTCTGGTCCACAAAATGCTTCATCTCTTAAATTT
GAAGATGCTAAACTTGCTGCTGCCATCTCTGAAGTGGTTTCCCAAACCCCAGCTTCAACGACCCAAGCT
GGAGCCCCACCCCGTGATACCTCGAGTGACAAAGACCTCGATGATGCCTTGGATAAACTCTCTGACAGT
CTAGGACAAAGGCAGCCTGACCCAGATGAGAACAAACCAATGGAAGATAAAGTAAAGGAAAAAGCTAAA
GCTGAACATAGAGACAAGCTTGGAGAAAGAGATGACACTATCCCACCTGAATACAGACATCTCCTGGAT
GATAATGGACAGGACAAACCAGTGAAGCCACCTACAAAGAAATCAGAGGATTCAAAGAAACCTGCAGAT
GACCAAGACCCCATTGATGCTCTCTCAGGAGATCTGGACAGCTGTCCCTCCACTACAGAAACCTCACAG
AACACAGCAAAGGATAAGTGCAAGAAGGCTGCTTCCAGCTCCAAAGCACCTAAGAATGGAGGTAAAGCG
AAGGATTCAGCAAAGACAACAGAGGAAACTTCCAAGCCAAAAGATGACTAA
ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGAT
TACAAGGATGACGACGATAAGGTTTAAACGGCCGGC

Restriction Sites: SgfI-MluI

Plasmid Map:

ACCN: NM_173061

Insert Size: 1293 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: This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.

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_173061.2
RefSeq Size:	3447 bp
RefSeq ORF:	1293 bp
Locus ID:	831
Cytogenetics:	5q15
MW:	47 kDa
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 (3) differs in the 5' UTR and coding region compared to variant 1. The resulting isoform (c, also known as tCAST) has a shorter and distinct N-terminus compared to isoform a.