

Product datasheet for **SC124129**

Calpain 10 (CAPN10) (NM_023083) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Calpain 10 (CAPN10) (NM_023083) Human Untagged Clone
Tag:	Tag Free
Symbol:	Calpain 10
Synonyms:	CANP10; NIDDM1
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL4</u>
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF: >OriGene ORF within SC124129 sequence for NM_023083 edited (data generated by NextGen Sequencing)

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ATGCGGGCGGGCCGGGGCGCGACGCCGGCGAGGGAGCTGTTCCGGGACGCCGCCTTCCCC
GCCGCGGACTCCTCGCTCTTCTGCGACTTGTCTACGCCGTGGCCAGTTCGCGGAGGAC
ATCACGTGGAGGCGGCCCCAGGAGATTTGTGCCACACCCCGCTGTTCCAGATGACCCA
CGGGAAGGGCAGGTGAAGCAGGGGCTGCTGGGGATTGCTGGTTCTGTGTGCCTGCGCC
GCGTGCAGAAGAGCAGGCACCTCCTGGACCAGGTCAATCCTCCGGGACAGCCGAGCTGG
GCCGACCAGGAGTACCGGGGCTCCTTACCTGTGCGCATTTGGCAGTTTGGACGCTGGGTG
GAGGTGACCACAGATGACCCGCTGCCGTGCCTTGACGGGAGACTCTGTTTCTCCCCTGC
CAGAGGGAGGATGTGTTCTGGCTCCCCTTACTGAAAAGGTCTACGCCAAGGTCCATGGG
TCTACGAGCACCTGTGGGCCGGCAGGTGGCGGATGCCCTGGTGGACCTGACCGCGCGC
CTGGCAGAAAAGTGAACCTGAAGGGCGTAGCAGGAAGCGGAGGCCAGCAGGACAGGCCA
GGCCGCTGGGAGCACAGGACTTGTGCGCAGCTGCTCCACCTGAAGGACCAGTGTCTGATC
AGCTGCTCGGTGCTCAGCCCAGAGCAGGTGCCCGGGAGCTGGGGAGTCCATGCCTTC
ATTGTCTCGGACCTGCGGGAGCTCCAGGGTCAGGCGGGCCAGTGCATCCTGCTGTGCGG
ATCCAGAACCCCTGGGGCCGGCGGTGCTGGCAGGGGCTCTGGAGAGAGGGGGGTGAAGGG
TGGAGCCAGGTAGATGCAGCGGTAGCATCTGAGCTCCTGTCCCAGCTCCAGGAAGGGGAG
TTCTGGGTGGAGGAGGAGGATTCCTCAGGGAGTTTACGAGCTCACCGTTGGCTACCCG
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GCGCTGCCTGGGGCTGGGTCAAGGGCCAGTACAGCAGGAGGCTGCCGGAACAACAGCGGC
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GTCCTGCAGAGATCCAGGCTGCACGCGGGGACTGGGCAGGCCGGGCCCGGGCACTGGTG
GGTGACATCATACTTCGTGGAGCCAGCAGCATCCCGGGCAAGCACTACCAGGTGTG
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CCCCCGTGGCTGGCACCGCGTGCCATGCATACGACCGGGAGGTCCACCTGCGTTGTGAG
CTCTACCGGGCTACTACCTGGCTGTCCCAGCACCTTCTGAAGGACGCGCCAGGGGAG
TTCCTGCTCCGAGTCTTCTACCGGGGAGTCTCCCTTAGCGCCATCAGGGCAGTGGCC
AAGAACACCACCCCGGGCAGCCCTGCCTGCGGGGGAGTGGGGGACCGTGCAGCTACGG
GGTTCTTGAGAGTCGGCCAGACGGCGGGGGCAGCAGGAACCTTGCCTCATACCCACC
AACCCCTGCTTCCCCTTCTCGGTCCCCGAGGGCCCTGGCCCCGCTGCGTCCGCATCACT
CTGCATCAGCACTGCCGCCCAGTGACACCGAGTCCACCCCATCGGCTTCCATATCTTC
CAGGTCCCAGAGGTGGAAGGAGCCAGGACGCACCCCACTGCTGCTGCAGGAGCCGCTG
CTGAGCTGCGTGCCACATCGCTACGCCAGGAGGTGAGCCGGCTCTGCCTCCTGCCTGCA
GGCACCTACAAGGTTGTGCCCTCCACCTACCTGCCGGACACAGAGGGGGCCTTACAGTG
ACCATCGCAACCAGGATTGACAGGCCATCCATTACAGCCAGGAGATGCTGGGCCAGTTC
CTCAAGAGGTCTCCGTCATGGCAGTGATGAAAACCTAA
    
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Clone variation with respect to NM_023083.3
1860 g=>a

5' Read Nucleotide Sequence:	>OriGene 5' read for NM_023083 unedited GACCTACTATAGGGCGGCCGGAATTCGGCACGAGGGCGGGCCGGCGTACTGGCCTGGTC CAGCACCTGCGGGGCCCTCGGGCTTGGAGGGCTGGGCCGGGCGGGGAACGGGCGGGGCGG GCCGGAGGCGGGCGGGCTGACTCGCCTTCTCTCCGGGCTGCGACCCCGAGGCAACCGG CTGCAGATGGGAGCCCGGGAGCCGAGGATGCGGGCGGGCCGGGCGCGACGCCGGCGAG GGAGCTGTTCCGGGACGCCGCTTCCCCGCCGGACTCCTCGCTTTCTGCGACTTGTC TACGCCGCTGGCCAGTTCGCGAGGACATCACGTGGAGGCGGGCCAGGAGATTTGTGC CACACCCCGGCTGTTCCAGATGACCCACGGGAAGGCAGGTGAAGCAGGGGCTGCTGGG GGATTGCTGGTTCCTGTGTGCCTGCGCCGCGCTGCAGAAGAGCAGGCACCTCCTGGACCA NGTCATTCTCCGGGACAGCCGAGCTGGGCCGACCAGGAGTACCGGGGCTCCTTACCTG TCGCATTTGGCAGTTGACGCTGGGTGGAGTGACCCAGATGACCGCTGCCGGCTTGAGGAG ACTTGTCTCCGTGCAGAGGAGAGGTCTGCTCCTTATGAAGGCTCCAGTCATGTCACACA CTGTGCGGCAGTGCCTCTGTGAN
Restriction Sites:	NotI-NotI
ACCN:	NM_023083
Insert Size:	2700 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).
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:	<ol style="list-style-type: none">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_023083.1 , NP_075571.1
RefSeq Size:	2620 bp
RefSeq ORF:	2019 bp
Locus ID:	11132
UniProt ID:	Q9HC96
Cytogenetics:	2q37.3
Protein Families:	Druggable Genome, Protease

Gene Summary:

Calpains represent a ubiquitous, well-conserved family of calcium-dependent cysteine proteases. The calpain proteins are heterodimers consisting of an invariant small subunit and variable large subunits. The large catalytic subunit has four domains: domain I, the N-terminal regulatory domain that is processed upon calpain activation; domain II, the protease domain; domain III, a linker domain of unknown function; and domain IV, the calmodulin-like calcium-binding domain. This gene encodes a large subunit. It is an atypical calpain in that it lacks the calmodulin-like calcium-binding domain and instead has a divergent C-terminal domain. It is similar in organization to calpains 5 and 6. This gene is associated with type 2 or non-insulin-dependent diabetes mellitus (NIDDM), and is located within the NIDDM1 region. Multiple alternative transcript variants have been described for this gene. [provided by RefSeq, Sep 2010]

Transcript Variant: This variant (1, also known as CAPN10a) represents the longer transcript and encodes the longer isoform (a).