

## Product datasheet for **SC309621**

### Calpain 10 (CAPN10) (NM\_023085) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Calpain 10 (CAPN10) (NM_023085) Human Untagged Clone
Tag:	Tag Free
Symbol:	CAPN10
Synonyms:	CANP10; NIDDM1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**Fully Sequenced ORF:** >SC309621 representing NM\_023085.  
 Blue=Insert sequence Red=Cloning site Green=Tag(s)

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GCTCGTTTAGTGAACCGTCAGAATTTTGTAAACGACTCACTATAGGGCGGCCGGGAATTCGTGACTG
GATCCGGTACCGAGGAGATCTGCCGCCCGCATCGCC
ATGCGGGCGGGCCGGGGCGGCACGCCGGCGAGGGAGCTGTTCCGGGACGCCGCCCTCCCCGCCGGGAC
TCCTCGCTCTTCTGCGACTTGTCTACGCCGTGGCCAGTTCCGGGAGGACATCAGTGGAGGGGCC
CAGGAGATTTGTGCCACACCCCGGCTGTTCCAGATGACCCACGGGAAGGGCAGGTGAAGCAGGGGCTG
CTGGGGATTGCTGGTTCCTGTGTGCTGCGCCGCTGCAGAAGAGCAGGCACCTCTGGACCAGGTC
ATTCTCCGGGACAGCCGAGCTGGGCCGACCAGGAGTACCGGGCTCCTTCACCTGTGCGATTTGGCAG
TTTGGACGCTGGGTGGAGGTGACCACAGATGACCGCTGCCGTGCCTTCAGGGAGACTCTGTTTCTCC
CGTGCCAGAGGGAGGATGTGTTCTGGTCCCCTACTGGAAAAGGTCTACGCCAAGGTCCATGGTCC
TACGAGCACCTGTGGCCGGCAGGTGGCGGATGCCCTGGTGGACCTGACCGCGCCCTGGCAGAAAGA
TGGAACTGAAGGGCGTAGCAGGAAGCGGAGGCCAGCAGGACAGGCCAGGCCGCTGGGAGCACAGGACT
TGTCGGCAGCTGCTCCACCTGAAGGACCAGTGTCTGATCAGCTGCTGCGTCTCAGCCCCAGAGCAGGT
GCCCGGGAGCTGGGGGAGTTCCATGCCTTCATTGTCTCGGACCTGCGGGAGCTCCAGGGTCAGGCGGGC
CAGTGCATCCTGCTGCTGCGGATCCAGAACCCTGGGGCCGGCGGTGCTGGCAGGGGCTCTGGAGAGAG
GGGGTGAAGGTGGAGCCAGGTAGATGCACGGTAGCATCTGAGCTCCTGTCCCAGCTCCAGGAAGGG
GAGTTCTGGGTGGAGGAGGAGGATTCCTCAGGGAGTTTGACGAGCTCACCGTTGGCTACCCGGTCACG
GAGGCCGGCCACCTGCAGAGCCTCTACACAGAGAGGCTGCTCTGCCATACCGGGCGCTGCCTGGGGCC
TGGGTCAAGGGCCAGTCAGCAGGAGGCTGCCGGAACAACAGCGGCTTTCCAGCAACCCAAATTCTGG
CTGCGGGTCTCAGAACCAGTGAGGTGTACATTGCCGCTCTGCAGAGATCCAGGCTGCACGCGGGAC
TGGGCAGGCCGGCCCGGGCACTGGTGGGTGACAGTCACTTCGTGGAGCCAGCGAGCATCCCGGGC
AAGCACTACCAGGCTGTGGGTCTGCACCTCTGGAAGGTCCAGAGGGTGAAGGAGCCAGGACGCACCC
CCACTGCTGCTGCAGGAGCCGCTGCTGAGCTGCGTGCACATCGTACGCCAGGAGGTGAGCCGGCTC
TGCTCCTGCCTGCGGGCACCTACAAGTTGTGCCCTCCACCTACCTGCCGGACACAGAGGGGGCTTC
ACAGTGACCATCGCAACCAGGATTGACAGGCCATCCATTACAGCCAGGAGATGCTGGGCCAGTTCTCT
CAAGAGGTCTCCGTCATGGCAGTGATGAAAACTAA
ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGAT
TACAAGGATGACGACGATAAGGTTTAAACGGCCGGC
  
```

**Restriction Sites:** SgfI-MluI

**Plasmid Map:** □

**ACCN:** NM\_023085

**Insert Size:** 1554 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\\_023085.3](#)

**RefSeq Size:** 2197 bp

**RefSeq ORF:** 1554 bp

**Locus ID:** 11132

**UniProt ID:** [Q9HC96](#)

**Cytogenetics:** 2q37.3

**Protein Families:** Druggable Genome, Protease

**MW:** 58 kDa

**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 (3, also known as CAPN10c) lacks two consecutive exons, resulting in the loss of an in-frame segment in the 3' coding region, compared to variant 1. The encoded isoform (c) is shorter than isoform a.