

## Product datasheet for **SC302781**

### Calcitonin (CALCA) (NM\_001033952) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Calcitonin (CALCA) (NM_001033952) Human Untagged Clone
Tag:	Tag Free
Symbol:	Calcitonin
Synonyms:	CALC1; CGRP; CGRP-alpha; CGRP-I; CGRP1; CT; KC; PCT
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>NCBI ORF sequence for NM_001033952, the custom clone sequence may differ by one or more nucleotides

```
ATGGGCTTCCAAAAGTTCTCCCCCTCCTGGCTCTCAGCATCTTGGTCCTGTTGCAGGCAGGCAGCCTCC
ATGCAGCACCATT CAGGTCTGCCCTGGAGAGCAGCCCAGCAGACCCGGCCACGCTCAGTGAGGACGAAGC
GCGCCTCCTGCTGGCTGCACTGGTGCAGGACTATGTGCAGATGAAGGCCAGTGAGCTGGAGCAGGAGCAA
GAGAGAGAGGGCTCCAGCCTGGACAGCCCCAGATCTAAGCGGTGCGGTAATCTGAGTACTTGCATGCTGG
GCACATACACGCAGGACTTCAACAAGTTTCACACGTTCCCCAACTGCAATTGGGGTTGGAGCACCTGG
AAAGAAAAGGGATATGTCCAGCGACTTGGAGAGAGACCATCGCCCTCATGTTAGCATGCCCCAGAATGCC
AACTAA
```

Restriction Sites:	Please inquire
ACCN:	NM_001033952



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**OTI Disclaimer:** Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at [custsupport@origene.com](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

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 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\\_001033952.1](#), [NP\\_001029124.1](#)

**RefSeq Size:** 816 bp

**RefSeq ORF:** 426 bp

**Locus ID:** 796

**UniProt ID:** [P01258](#)

**Cytogenetics:** 11p15.2

**Protein Families:** Druggable Genome, Secreted Protein

**Gene Summary:**

This gene encodes the peptide hormones calcitonin, calcitonin gene-related peptide and katacalcin by tissue-specific alternative RNA splicing of the gene transcripts and cleavage of inactive precursor proteins. Calcitonin is involved in calcium regulation and acts to regulate phosphorus metabolism. Calcitonin gene-related peptide functions as a vasodilator and as an antimicrobial peptide while katacalcin is a calcium-lowering peptide. Multiple transcript variants encoding different isoforms have been found for this gene.[provided by RefSeq, Aug 2014]

Transcript Variant: This variant (2) has an alternate 3' coding region and 3' UTR compared to variant 3. The resulting protein has a longer and distinct C-terminus compared to calcitonin gene-related peptide 1. Variants 1 and 2 encode the same protein, which is cleaved to yield calcitonin (CT), a thyroid peptide-hormone product, and katacalcin peptides. Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.