

## Product datasheet for **SC334607**

### beta Casein (CSN2) (NM\_001302770) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	beta Casein (CSN2) (NM_001302770) Human Untagged Clone
Tag:	Tag Free
Symbol:	beta Casein
Synonyms:	CASB; PDC213
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>NCBI ORF sequence for NM_001302770, the custom clone sequence may differ by one or more nucleotides

```
ATGAAGGTCCTCATCCTCGCCTGCCTGGTGGCTCTTGCTCTTGCAAGGGAGACCATAGAAAAGCCTTTCAA
GCAGTGAGGAATCTATTACAGAATAACAAGAAAGTTGAGAAGGTTAAACATGAGGACCAGCAGCAAGGAGA
GGATGAACACCAGGATAAAATCTACCCCTCTTTCCAGCCACAGCCTCTGATCTATCCATTCGTTGAACCT
ATCCCTATGGTTTTCTCCACAAAACATTCTGCCTCTTGCTCAGCCTGCTGTGGTGCCTGTCCCTC
AGCCTGAAATAATGGAAGTCCCTAAAGCTAAAGACTGTCTACACTAAGGGCAGAGTGATGCCTGTCT
TAAATCTCCAACGATACCCTTTTTGACCCTCAAATCCAAAACACTACTGATCTTGAAAACTGCATCTT
CCTCTGCCTCTGCTCCAGCCCTTGATGCAGCAGGTCCCTCAGCCTATTCCTCAGACTCTTGCACTTCCCC
CTCAGCCCTGTGGTCTGTTCTCAGCCCAAAGTCTGCCTATCCCCAGCAAGTGGTGCCTACCCTCA
GAGAGCTGTGCCTGTTCAAGCCCTTCTGCTCAACCAAGAATTCTACTTAACCCACCCACCAGATCTAC
CCTGTGACTCAGCCACTTGCCCCAGTTCATAACCCATTAGTGTCTAA
```

Restriction Sites:	Sgfl-MluI
ACCN:	NM_001302770
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).



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**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\\_001302770.1](#), [NP\\_001289699.1](#)

**RefSeq Size:** 1078 bp

**RefSeq ORF:** 678 bp

**Locus ID:** 1447

**UniProt ID:** [P05814](#)

**Cytogenetics:** 4q13.3

**Protein Families:** Secreted Protein

**Gene Summary:** This gene is a member of the beta casein family. There are two types of casein protein, beta (encoded by this gene) and kappa, both of which are secreted in human milk. Beta casein is the principal protein in human milk and the primary source of essential amino acids for a suckling infant. Beta and kappa casein proteins acting together form spherical micelles which bind within them important dietary minerals, such as calcium and phosphorous. In addition, the C-terminal 14 aa of the protein has antimicrobial activity, especially in preterm milk, displaying antibacterial activity against *S. aureus* and *Y. enterocolitica*. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Jul 2020]  
Transcript Variant: This variant (2) uses an alternate in-frame splice site in the central coding region, compared to variant 1. This results in a shorter protein (isoform 2), compared to isoform 1.