

Product datasheet for RC236713

beta Casein (CSN2) (NM_001302770) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	beta Casein (CSN2) (NM_001302770) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	CSN2
Synonyms:	CASB; PDC213
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin
ORF Nucleotide Sequence:	>RC236713 representing NM_001302770 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGAAGGTCCTCATCCTCGCCTGCCTGGTGGCTCTTGCTCTTGAAGGGAGACCATAGAAAGCCTTTCAA
GCAGTGAGGAATCTATTACAGAATACAAGAAAGTTGAGAAGGTTAAACATGAGGACCAGCAGCAAGGAGA
GGATGAACACCAGGATAAAATCTACCCCTTTCCAGCCACAGCCTCTGATCTATCCATTGTTGAACCT
ATCCCCTATGGTTTTCTCCACAAAACATTCTGCCTCTTGCTCAGCCTGCTGTGGTGTGCCTGTCCCTC
AGCCTGAAATAATGGAAGTCCCTAAAGCTAAAGACACTGTCTACACTAAGGGCAGAGTGATGCCTGTCT
TAAATCTCCAACGATACCTTTTTTGACCCTCAAATCCCAAACACTCACTGATCTTGAAAATCTGCATCTT
CCTCTGCCTCTGCTCCAGCCCTTGATGCAGCAGGTCCTCAGCCTATTCTCAGACTCTTGCACTTCCCC
CTCAGCCCCTGTGGTCTGTTCTCAGCCCAAAGTCTGCCTATCCCCAGCAAGTGGTGCCTACCCCTCA
GAGAGCTGTGCCTGTTCAAGCCCTTCTGCTCAACCAAGAACTTCTACTTAACCCACCCACCAGATCTAC
CCTGTGACTCAGCCACTTGCCCCAGTTCATAACCCATTAGTGTC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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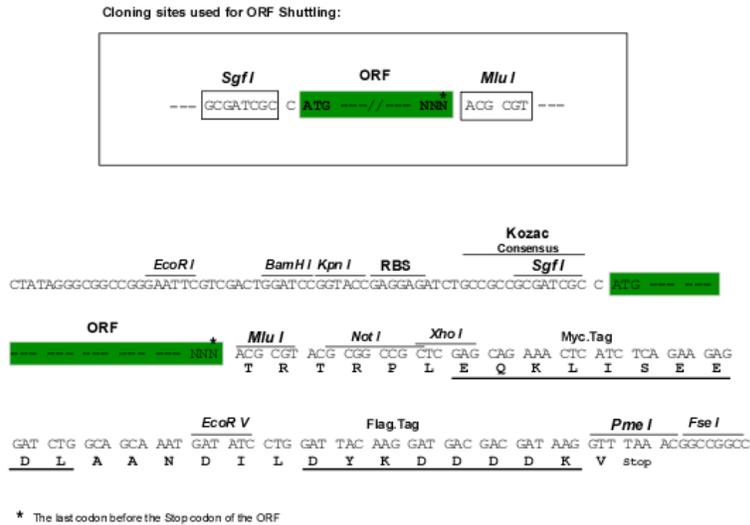
Protein Sequence: >RC236713 representing NM_001302770
Red=Cloning site Green=Tags(s)

MKVLILACLVALALARETIESLSSEESITEYKKVEKVKHEDQQQGEDEHQDKIYPSFQPQPLIYPFVEP
 IPYGFLPQNILPLAQPAVVLPVPQPEIMEVPAKADTVYTKGRVMPVLKSPITIPFFDQPQIPKLTDLLENLHL
 PLPLLQPLMQVPQPIPQTLALPPQPLWSVPQPKVLPQPQVVPYQRAVPVQALLLNQELLLNPHTQIY
 PVTQPLAPVHNPIISV

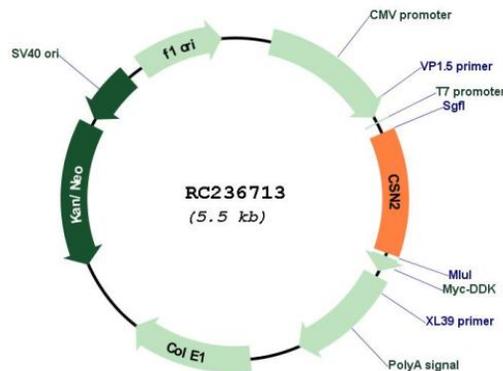
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: Sgfl-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_001302770

ORF Size: 675 bp

OTI Disclaimer:	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 clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
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_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
MW:	25.7 kDa
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 <i>S. aureus</i> and <i>Y. enterocolitica</i> . Alternative splicing results in multiple transcript variants. [provided by RefSeq, Jul 2020]