

Product datasheet for **RG236713**

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:	TurboGFP
Symbol:	beta Casein
Synonyms:	CASB; PDC213
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG236713 representing NM_001302770. Blue=ORF Red=Cloning site Green=Tag(s)

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GCTCGTTTAGTGAACCGTCAGAATTTTGTAAACGACTCACTATAGGGCGCCGGGAATTCGTCGACTG
GATCCGGTACCGAGGAGATCTGCCGCCCGCATCGCC
ATGAAGGTCCTCATCCTCGCCTGCCTGGTGGCTCTTGCTCTTGCAAGGGAGACCATAGAAAGCCTTTCA
AGCAGTGAGGAATCTATTACAGAATAACAAGAAAGTTGAGAAGGTTAAACATGAGGACCAGCAGCAAGGA
GAGGATGAACACCAGGATAAAATCTACCCCTCTTCCAGCCACAGCCTCTGATCTATCCATTCGTTGAA
CCTATCCCTATGGTTTTCTCCACAAAACATTCTGCCTCTTGCTCAGCCTGCTGTGGTGCCTGCCTGC
CCTCAGCCTGAAATAATGGAAGTCCCTAAAGCTAAAGACACTGTCTACACTAAGGGCAGAGTGATGCCT
GTCCTTAAATCTCCAACGATACCCTTTTTGACCCTCAAATCCCAAAACTCACTGATCTTGAAAATCTG
CATCTTCCTCTGCCTCTGCTCCAGCCCTTGATGCAGCAGGTCCTCAGCCTATTCCTCAGACTCTTGCA
CTTCCCCCTCAGCCCCTGTGGTCTGTTCCCTCAGCCCAAAGTCTGCCTATCCCCCAGCAAGTGGTGCCC
TACCCTCAGAGAGCTGTGCCTGTTCAAGCCCTTCTGCTCAACCAAGAAGTCTACTTAACCCACCCAC
CAGATCTACCCTGTGACTCAGCCACTTGCCCCAGTTTCATAACCCATTAGTGTC
ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAAAC
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Protein Sequence: >Peptide sequence encoded by RG236713
 Blue=ORF Red=Cloning site Green=Tag(s)

MKVLILACLVALALARETIESLSSEESITEYKKVEKVKHEDQQQGEDEHQDKIYPSFQPQLIYPFVE
 PIPYGFLLPQNILPLAQPAVVLPVPQPEIMEVPKAKDTVYTKGRVMPVLKSPTIPFFDPQIPKLTDLLENL
 HLPLPLQLMQQVPQIPQTLALPPQLWSVPQPKVLPQPQVVPYPQRAVPVQALLLNQELLLNPTH
 QIYPVTQPLAPVHNPISV
 TRTRPLEMESDESGLPAMEIECRITGTLNGVEFELVGGGEGTPEQGRMTNKMSTKGALTFSPYLLSHV
 MGYGFYHFGTYPSGYENPFLHAINNGGYNTRIEKYEDGGVLHVSFSYRYEAGRVIIGDFKVMGTGFPEL
 SVIFTDKIIRSNAIVEHLHPMGDNDLDGSFTRTFSLRDGGYSSVVDSHMHFKSAIHPSILQNGGPMFA
 FRRVEEDHSNTELGIVEYQHAFKTPDADAGEERV

Restriction Sites: SgfI-MluI

Cloning Scheme:



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).

RefSeq: [NM_001302770.1](#), [NP_001289699.1](#)

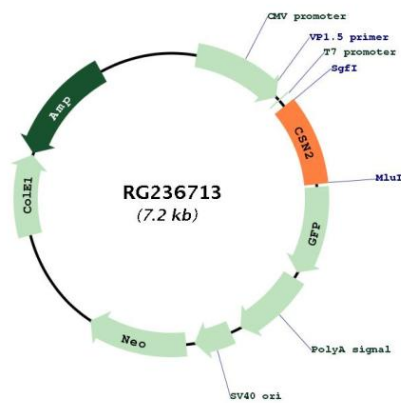
RefSeq Size: 1078 bp

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 *S. aureus* and *Y. enterocolitica*. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Jul 2020]

Product images:



Circular map for RG236713