

Product datasheet for **RC400221**

beta Catenin (CTNNB1) (NM_001904) Human Mutant ORF Clone

Product data:

Product Type:	Mutant ORF Clones
Product Name:	beta Catenin (CTNNB1) (NM_001904) Human Mutant ORF Clone
Mutation Description:	G38P
Affected Codon#:	38
Affected NT#:	c.112_114
Nucleotide Mutation:	CTNNB1 Mutant (G38P), Myc-DDK-tagged ORF clone of Homo sapiens catenin (cadherin-associated protein), beta 1, 88kDa (CTNNB1), transcript variant 1 as transfection-ready DNA
Effect:	Missense
Symbol:	CTNNB1
Synonyms:	armadillo; CTNNB; EVR7; MRD19; NEDSDV
E. coli Selection:	Kanamycin (25 ug/mL)
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
Tag:	Myc-DDK
ACCN:	NM_001904
ORF Size:	2343 bp
Restriction Sites:	Sgfi-MluI



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ORF Nucleotide
Sequence:

>RC400221 representing NM_001904
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGGATCGCC**

ATGGCTACTCAAGCTGATTTGATGGAGTTGGACATGGCCATGGAACCAGACAGAAAACGGCTGTAGTC
ACTGGCAGCAACAGTCTTACCTGGACTCTGGAATCCATTCTCCGCCACTACCACAGCTCCTTCTCTGAG
TGGTAAAGGCAATCCTGAGGAAGAGGATGTGGATACCTCCAAGTCTGTATGAGTGGGAACAGGGATTT
TCTCAGTCCTTCACTCAAGAACAAGTAGCTGATATTGATGGACAGTATGCAATGACTCGAGCTCAGAGGG
TACGAGCTGCTATGTTCCCTGAGACATTAGATGAGGGCATGCAGATCCCATCTACACAGTTTGTGCTGC
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AACTATCAAGATGATGCAGAACTGGCCACAGTCAATCCCTGAACTGACAAAAGTCTAAATGACGAGG
ACCAGGTGGTGGTTAATAAGGCTGCAGTTATGGTCCATCAGCTTTCTAAAAGGAAGCTCCAGACACGC
TATCATGCGTTCTCCTCAGATGGTGTCTGCTATTGTACGTACCATGCAGAATACAAATGATGTAGAAACA
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TAGCTTATGGCAACCAAGAAAGCAAGCTCATCATACTGGCTAGTGGTGGACCCCAAGCTTTAGTAAATAT
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TTCGAAATCTTGCCCTTTGTCCCGCAAATCATGCACCTTTGCGTGAGCAGGGTGCATTCCACGACTAGT
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TGAAAACATCCAAAGAGTAGCTGCAGGGGCTCTGTGAACTTGCTCAGGACAAGGAAGTGCAGAAGCT
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GCTGACCAGCTCTCTTTCAGAACAGAGCCAATGGCTTGGAAATGAGACTGCTGATCTTGGACTTGATATT
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CTATCCAGTTGATGGGCTGCCAGATCTGGGGCATGCCAGGACCTCATGGATGGGCTGCCTCCAGGTGAC
AGCAATCAGCTGGCCTGGTTTGATACTGACCTG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC400221 representing NM_001904
 Red=Cloning site Green=Tags(s)

MATQADLMELDMAMEPDRKAAVSHWQQSYLDSGIHSPATTTAPSLSGKGNPEEEDVDTSQVLWEWEQGF
 SQSFTQEQVADIDGQYAMTRAQRVRAAMFPETLDEGMQIPSTQFDAAHPNTVQRLAEPSSQMLKHAVVNL I
 NYQDDAELATRAIPELTKLLNDEDQVVVNKAAMVHQLSKKEASRHAIMRSPQMVS AIVRTMQNTNDVET
 ARCTAGTLHNL SHHREGLLAIFKSGGIPALVKMLGSPVDSVLFYAITTLHNL LLHQEGAKMAVRLAGGLQ
 KMVALLNKTNVKFLAITTDCLQILAYGNQESKLIILASGGPQALVNIMRTYTYEKLLWTTSRVLKVL SVC
 SSNKPAIVEAGGMQALGLHLTDPSQRLVQNCLWTLRNLSDAATKQEGMEGLLGTLVQLLGSDDINVV TCA
 AGILSNLTCNNYKMKMMVCQVGGIEALVRTVL RAGDREDITEPAICALRHLSRHQEAEMAQNAVRLHYG
 LPVVVLLHPPSHWPLIKATVGLIRNLALCPANHAPLREQGAIPRLVQLLVRAHQDTQRRRTSMGGTQQQF
 VEGVRMEEIVEGCTGALHILARDVHNRI VIRGLNTIPLFVQLLYSPIENIQRVAAGVLC ELAQDKEAAEA
 IEAEGATAPL TELLHSRNEGVATYAAAVLFRMSEDKPQDYKKRLSVELTSSLFRTEPMAWNETADLGLDI
 GAQGEPLGYRQDDPSYRSFHSGGYGQDALGMDPMMHEMGGHHPGADYPVDGLPDLGHAQDLM DGLPPGD
 SNQLAWFD TDL

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Restriction Sites:

SgfI-MluI

Cloning Scheme:



OTI Disclaimer:	<p>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 or by calling 301.340.3188 option 3 for pricing and delivery.</p> <p>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</p>
OTI Annotation:	<p>This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.</p>
Components:	<p>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).</p>
RefSeq:	<p>NP_001895</p>
RefSeq Size:	<p>3720 bp</p>
RefSeq ORF:	<p>2346 bp</p>
Locus ID:	<p>1499</p>
Cytogenetics:	<p>3p22.1</p>
Domains:	<p>Armadillo_seg</p>
Protein Families:	<p>Druggable Genome, ES Cell Differentiation/IPS, Transcription Factors</p>
Protein Pathways:	<p>Adherens junction, Arrhythmogenic right ventricular cardiomyopathy (ARVC), Basal cell carcinoma, Colorectal cancer, Endometrial cancer, Focal adhesion, Leukocyte transendothelial migration, Melanogenesis, Pathogenic Escherichia coli infection, Pathways in cancer, Prostate cancer, Thyroid cancer, Tight junction, Wnt signaling pathway</p>
MW:	<p>85 kDa</p>
Gene Summary:	<p>The protein encoded by this gene is part of a complex of proteins that constitute adherens junctions (AJs). AJs are necessary for the creation and maintenance of epithelial cell layers by regulating cell growth and adhesion between cells. The encoded protein also anchors the actin cytoskeleton and may be responsible for transmitting the contact inhibition signal that causes cells to stop dividing once the epithelial sheet is complete. Finally, this protein binds to the product of the APC gene, which is mutated in adenomatous polyposis of the colon. Mutations in this gene are a cause of colorectal cancer (CRC), pilomatixoma (PTR), medulloblastoma (MDB), and ovarian cancer. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Aug 2016]</p>