

## Product datasheet for **RC400228**

### 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:     | T41I   |
| Affected Codon#:          | 41   |
| Affected NT#:             | c.122  |
| Nucleotide Mutation:      | CTNNB1 Mutant (T41I), 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:**

>RC400228 representing NM\_001904  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGCTACTCAAGCTGATTTGATGGAGTTGGACATGGCCATGGAACCAGACAGAAAACGGCTGTTAGTC  
 ACTGGCAGCAACAGTCTTACCTGGACTCTGGAATCCATTCTGGTGCCACTATCACAGCTCCTTCTCTGAG  
 TGGTAAAGGCAATCCTGAGGAAGAGGATGTGGATACCTCCAAGTCTGTATGAGTGGGAACAGGGATTT  
 TCTCAGCTCCTCACTCAAGAACAAGTAGCTGATATTGATGGACAGTATGCAATGACTCGAGCTCAGAGGG  
 TACGAGCTGCTATGTTCCCTGAGACATTAGATGAGGGCATGCAGATCCCATCTACACAGTTTGATGCTGC  
 TCATCCCCTAATGTCCAGCGTTTGGCTGAACCATCACAGATGCTGAAACATGCAGTTGTAACCTTGATT  
 AACTATCAAGATGATGCAGAACTGGCCACAGTCAATCCCTGAACTGACAAAAGTCTAAATGACGAGG  
 ACCAGGTGGTGGTTAATAAGGCTGCAGTTATGGTCCATCAGCTTTCTAAAAAGGAAGCTCCAGACACGC  
 TATCATGCGTTCTCCTCAGATGGTGTCTGCTATTGTACGTACCATGCAGAATACAAATGATGTAGAAACA  
 GCTCGTTGTACCGCTGGGACCTTGCATAACCTTTCCCATCATCGTGAGGGCTTACTGGCCATCTTTAAGT  
 CTGGAGGCATTCTGCCCTGGTAAAATGCTTGGTTCCACAGTGGATTCTGTGTTGTTTTATGCCATTAC  
 AACTCTCCACAACCTTTTATTACATCAAGAAGGAGCTAAAATGGCAGTGCCTTTAGCTGGTGGGCTGCAG  
 AAAATGGTTGCCTTGCTCAACAAAACAATGTTAAATCTTGGCTATTACGACAGACTGCCTTCAAATTT  
 TAGCTTATGGCAACCAAGAAAGCAAGCTCATCATACTGGCTAGTGGTGGACCCCAAGCTTTAGTAAATAT  
 AATGAGGACCTATACTACGAAAACTACTGTGGACCACAAGCAGAGTGTGAAGGTGCTATCTGTCTGC  
 TCTAGTAATAAGCCGGCTATTGTAGAAGCTGGTGAATGCAAGCTTTAGGACTCACCTGACAGATCCAA  
 GTCACAGCTTTGTTTCCAGAACTGCTTTGGACTCTCAGGAATCTTTCAGATGCTGCAACTAAACAGGAAGG  
 GATGGAAGGTCTCCTTGGGACTCTTGTTCAGCTTCTGGGTTTCAGATGATATAAATGTGGTCACTGTGCA  
 GCTGGAATCTTTCTAACCTCACTTGAATAATTATAAGAACAAGATGATGGTCTGCCAAGTGGGTGGTA  
 TAGAGGCTCTTGTGCGTACTGCTTCCGGGCTGGTGACAGGGAAGACATCACTGAGCCTGCCATCTGTGC  
 TCTTCGTATCTGACCAGCCGACACCAAGAAGCAGAGATGGCCAGAATGCAGTTCGCCTTCACTATGGA  
 CTACCAGTTGTGGTTAAGCTCTTACACCACCATCCCCTGGCCTCTGATAAAGGCTACTGTTGGATTGA  
 TTCGAAATCTTGCCCTTTGTCCCGCAAATCATGCACCTTTGCGTGAGCAGGGTGCATTCCACGACTAGT  
 TCAGTTGCTTGTTCGTGCACATCAGGATACCCAGCGCCGTACGTCCATGGGTGGGACACAGCAGCAATTT  
 GTGGAGGGGGTCCGCATGGAAGAAATAGTTGAAGTTGTACCGGAGCCCTTACATCCTAGCTCGGGATG  
 TTCACAACCGAATTGTTATCAGAGGACTAAATACCATTCCATTGTTTGTGCAGCTGCTTTATTCTCCCAT  
 TGAAAACATCCAAAGAGTAGCTGCAGGGGTCTCTGTGAACCTGCTCAGGACAAGGAAGCTGCAGAAGCT  
 ATTGAAGCTGAGGGAGCCACAGCTCCTCTGACAGAGTTACTTCACTCTAGGAATGAAGGTGTGGCGACAT  
 ATGCAGCTGCTGTTTTGTTCCGAATGTCTGAGGACAAGCCACAAGATTACAAGAAACGGCTTTCAGTTGA  
 GCTGACCAGCTCTCTTTCAGAACAGAGCCAATGGCTTGGAAATGAGACTGCTGATCTTGGACTTGATATT  
 GGTGCCAGGGGAGAACCCTTGGATATCGCCAGGATGATCCTAGCTATCGTTCTTTTCACTCTGGTGGAT  
 ATGGCCAGGATGCCTTGGGTATGGACCCATGATGGAACATGAGATGGGTGGCCACCACCCTGGTCTGA  
 CTATCCAGTTGATGGGCTGCCAGATCTGGGGCATGCCAGGACCTCATGGATGGGCTGCCTCCAGGTGAC  
 AGCAATCAGCTGGCCTGGTTTGATACTGACCTG

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC400228 representing NM\_001904  
 Red=Cloning site Green=Tags(s)

MATQADLMELDMAMEPDRKAAVSHWQQSYLDSGIHSGATITAPSLSGKGNPEEEDVDTSQVL YEWEQGF  
 SQSFTQEQVADIDGQYAMTRAQRVRAAMPETLDEGMQIPSTQFDAAHP TNVQRLAEP S QMLKHAVVNL I  
 NYQDDAELATRAIPELTKLLNDEDQVVVNKAAVMVHQLSKKEASRHAIMRSPQM VSAIVRTMQNTNDVET  
 ARCTAGTLHNL SHHREGLLAIFKSGGIPALVKMLGSPVDSVLFYAITTLHNL LLHQEGAKMAVRLAGGLQ  
 KMVALLNKTNVKFLAITTDCLQILAYGNQESKLIILASGGPQALVNIMRTYTYEKLLWTTSRVLKVL SVC  
 SSNKPAIVEAGGMQALGLHLDTPSQRLVQNCLWTLRNLSDAATKQEGMEGLLGTLVQLLGSDDINVV TCA  
 AGILSNLTCNNYKMKMMVCQVGGIEALVRTVLRAGDREDITEPAICALRHLSRHQEAEMAQNAVRLHYG  
 LPVVVLLHPPSHWPLIKATVGLIRNLALCPANHAPLREQGAIPRLVQLLVRAHQDTQRRTSMGGTQQQF  
 VEGVRMEEIVEGCTGALHILARDVHNRI VIRGLNTIPLFVQLLYSPIENIQRVAAGVLC ELAQDKEAAEA  
 IEAEGATAPL TELLHSRNEGVATYAAAVLFRMSEDKPQDYKKRLSVELTSSLFRTEPMAWNETADLGLDI  
 GAQGEPLGYRQDDPSYRSFHSGGYGQDALGMDPMMHEMGGHHPGADYPVDGLPDLGHAQDLM DGLPPGD  
 SNQLAWFD TDL

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Restriction Sites:

SgfI-MluI

Cloning Scheme:



|                          |   |
|--------------------------|---|
| <b>OTI Disclaimer:</b>   | 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 <a href="mailto:custsupport@origene.com">custsupport@origene.com</a> 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. <a href="#">More info</a>  |
| <b>OTI Annotation:</b>   | This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.  |
| <b>Components:</b>       | 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).  |
| <b>RefSeq:</b>           | <a href="#">NP_001895</a>   |
| <b>RefSeq Size:</b>      | 3720 bp   |
| <b>RefSeq ORF:</b>       | 2346 bp   |
| <b>Locus ID:</b>         | 1499  |
| <b>Cytogenetics:</b>     | 3p22.1  |
| <b>Domains:</b>          | Armadillo_seg   |
| <b>Protein Families:</b> | Druggable Genome, ES Cell Differentiation/IPS, Transcription Factors  |
| <b>Protein Pathways:</b> | 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  |
| <b>MW:</b>               | 85 kDa  |
| <b>Gene Summary:</b>     | 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] |