

Product datasheet for **RC201766**

alpha 1 Catenin (CTNNA1) (NM_001903) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	alpha 1 Catenin (CTNNA1) (NM_001903) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	alpha 1 Catenin
Synonyms:	CAP102; MDPT2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide
Sequence:**

>RC201766 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGACTGCTGTCCATGCAGGCAACATAAACTTCAAGTGGGATCCTAAAAGTCTAGAGATCAGGACTCTGG
 CAGTTGAGAGACTGTTGGAGCCTTTGTTACACAGGTTACAACCCTTGTAAACACCAATAGTAAAGGGCC
 CTCTAATAAGAAGAGAGGTCGTTCTAAGAAGGCCCATGTTTTGGCTGCATCTGTTGAACAAGCAACTGAG
 AATTTCTTGGAGAAGGGGATAAAATTGCGAAGGAGAGCCAGTTTCTCAAGGAGGAGCTTGTGGCTGCTG
 TAGAAGATGTTGAAAACAAGGTGATTTGATGAAGGCTGCTGCAGGAGAGTTCCGAGATGATCCCTGCTC
 TTCTGTGAAGCGAGGCAACATGGTTCGGGCAGCTCGAGCTTTGCTCTGCTGTTACCCGGTTGCTGATT
 TTGGCTGACATGGCAGATGTCTACAAATTACTTGTTCAGCTGAAAGTTGTGAAGATGGTATCTTGAAGT
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 TGCAGCCTATAAAGGCCAACAGGGACCTGATATACAAGCAGCTGCAGCAGGCGGTACAGGCATTTCCAA
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 GCACTCAATAACTTTGACAAAACAATCATTGTGGACCCCTTGAGCTTCAGCGAGGAGCGCTTTAGGCCTT
 CCCTGGAGGAGCGTCTGGAAAGCATCATTAGTGGGGCTGCCTTGATGGCCGACTCGTCTGCACGCGTGA
 TGACCGTCTGAGCGAATTGTGGCAGAGTGAATGCTGTCCGCCAGGCCCTGCAGGACCTGCTTTCGGAG
 TACATGGGCAATGCTGGACGTAAGAAAAGAAAGTGCATGCACTCAATTCTGCAATAGATAAAAAGACCAAGA
 AGACAGGGACTTGCCTAGACAGCTCCGCAAAGCTGTCATGGACCAGTTCAGATTCTTTCCTCGAAAC
 CAATGTTCCACTTTTGGTATTGATTGAAGCTGCAAAGAATGGAATGAGAAAAGAAGTTAAGGAGTATGCC
 CAAGTTTTCCGTGAACATGCCAACAAATTGATTGAGGTTGCCAATTGGCCTGTTCCATCTCAAATAATG
 AAGAAGGTGTAAGCTTGTTCGAATGTCTGCAAGCCAGTTAGAAGCCCTCTGTCTCAGGTTATTAATGC
 TGCCTGGCTTTAGCAGCAAAACACAGAGTAACTGGCCCAAGAGAACATGGATCTTTTTAAAGAACA
 TGGGAAAAACAAGTCCGTGTTCTCACAGATGCTGTGATGACATTACTTCCATTGATGACTTCTTGGCTG
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 TGCCACGTTTTACTGAGCAAGTAGAAGCAGCCGTGGAAGCCCTCAGCTCGGACCCCTGCCAGCCCATGGA
 TGAGAATGAGTTTATCGATGCTTCCCGCCTGGTATATGATGGCATCCGGGACATCAGGAAAGCAGTGCTG
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 CGAGCGTCCAGACAGAAGACGATCAGCTGATAGCTGGCCAGAGTGCCCGGGCGATCATGGCTCAGCTTCC
 CCAGGAGCAAAAAGCGAAGATTGCGGAACAGGTGGCCAGCTTCCAGGAAGAAAAGAGCAAGCTGGATGCT
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 GAAAATTGCTGAGGCAGGATCCAGGATGGACAAGCTTGGCCGACCAATTGCAGACCATTGCCCGACTCG
 GCTTGCAAGCAGGACCTGCTGGCTACCTGCAACGCATCGCCCTCTACTGCCACCAGCTGAACATCTGCA
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 CAGAGAAAAAGCCATTGGTGAAGAGAGAAAACAGGATGAGACACAGACCAAGATTAACGGGCATCTCA
 GAAGAAGCACGTGAACCCGGTGCAGGCCCTCAGCGAGTCAAAGCTATGGACAGCATC

AG**CGGACCG**ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC
 TGGATTACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC201766 protein sequence
 Red=Cloning site Green=Tags(s)

MTAVHAGNINFKWDPKSLEIRTLAVERLLEPLVTQVTTLVNTNSKGPSNKKRGRSKKAHVLAASVEQATE
 NFLKDGDKIAKESQFLKEELVAAVEDVRKQGDLMKAAAGEFADDPCCSSVKRGNMVRARALLSAVTRLLI
 LADMADVYKLLVQLKVVEDGILKLRNAGNEQDLGIQYKALKPEVDKLNIMAAKRQELKDVGHDRDQMAAA
 RGILQKNVPILYTASQAQLQHPDVAAYKANRDLIYKQLQQAVTGISNAAQATASDDASQHQGGGGGELAY
 ALNNFDKQIIVDPLSFSEERFRPSLEERLESIIISGAALMADSSCTRDRRERIVAECNAVRQALQDLLSE
 YMGNAGRKERSDALNSAIDKMTKKTRDLRRQLRKAVMDHVSDSFLETNPVLLVLEAAKNGNEKEVKEYA
 QVFREHANKLIEVANLACISNNEEGVKLVRMSASQLEALCPQVINAALALAAKPQSKLAQENMDLFKEQ
 WEKQVRVLTDAVDDITSIDDFLAVSENHILEDVNCVIALQEKDVDGLDRTAGAIRGRAARVIHVVTSEM
 DNYEPGVYTEKVLKLLSNTVMRPFTEQVEAAVEALSSDPAQPMDEFIDASRLVYDGIRDIRKAVL
 MIRTPEELDDSDFETEDFVRSRTSVQTEDDQLIAGQSARAIMAQLPQEQAQAKIAEQVASFQEEKSLDA
 EVSKWDDSGNDIIVLAKQCMIMMEMTDFTRGKGPLKNTSDVISAAKKIAEAGSRMDKLGRTIADHCPDS
 ACKQDLLAYLQRIALYCHQLNICSKVKAQVQNLGGELVVSQVDSAMSLIQAAKMLMNAVVTQVKASYVAS
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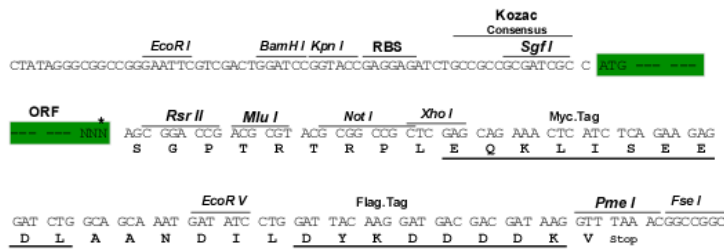
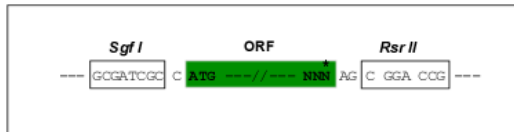
SGP TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6185_a05.zip

Restriction Sites: SgfI-RsrII

Cloning Scheme:

Cloning sites used for ORF Shuttling:

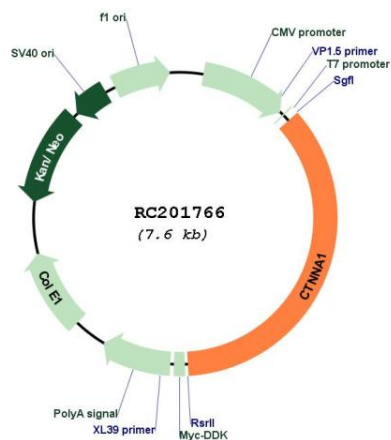


* The last codon before the Stop codon of the ORF

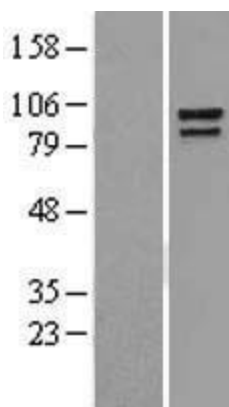
ACCN: NM_001903

ORF Size:	2718 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_001903.5
RefSeq Size:	3791 bp
RefSeq ORF:	2721 bp
Locus ID:	1495
UniProt ID:	P35221
Cytogenetics:	5q31.2
Domains:	Vinculin
Protein Families:	Druggable Genome
Protein Pathways:	Adherens junction, Arrhythmogenic right ventricular cardiomyopathy (ARVC), Endometrial cancer, Leukocyte transendothelial migration, Pathways in cancer, Tight junction
MW:	100.1 kDa
Gene Summary:	This gene encodes a member of the catenin family of proteins that play an important role in cell adhesion process by connecting cadherins located on the plasma membrane to the actin filaments inside the cell. The encoded mechanosensing protein contains three vinculin homology domains and undergoes conformational changes in response to cytoskeletal tension, resulting in the reconfiguration of cadherin-actin filament connections. Certain mutations in this gene cause butterfly-shaped pigment dystrophy. [provided by RefSeq, May 2016]

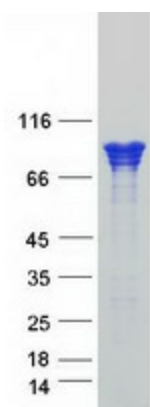
Product images:



Circular map for RC201766



Western blot validation of overexpression lysate (Cat# [LY400708]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC201766 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified CTNNA1 protein (Cat# [TP301766]). The protein was produced from HEK293T cells transfected with CTNNA1 cDNA clone (Cat# RC201766) using MegaTran 2.0 (Cat# [TT210002]).