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Product datasheet for RC238779

alpha 1 Catenin (CTNNA1) (NM_001290312) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	alpha 1 Catenin (CTNNA1) (NM_001290312) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	CTNNA1
Synonyms:	CAP102; MDPT2
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin

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ORF Nucleotide Sequence:

>RC238779 representing NM_001290312
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGACCAAGAAGACCAGGGACTTGCGTAGACAGCTCCGCAAAGCTGTCATGGACCACGTTTCAGATTCTT
TCCTGGAAACCAATGTTCCACTTTTGGTATTGATTGAAGCTGCAAAGAATGGAAATGAGAAAGAAGTTAA
GGAGTATGCCCAAGTTTTCCGTGAACATGCCAACAAATTGATTGAGGTTGCCAACTTGGCCTGTTCCATC
TCAAATAATGAAGAAGGTGTAAAGCTTGTTCGAATGTCTGCAAGCCAGTTAGAAGCCCTCTGTCCTCAGG
TTATTAATGCTGCACTGGCTTTAGCAGCAAAACCACAGAGTAAACTGGCCCAAGAGAACATGGATCTTTT
TAAAGAACAATGGGAAAAACAAGTCCGTGTTCTCACAGATGCTGTCGATGACATTACTTCCATTGATGAC
TTCTTGGCTGTCTCAGAGAATCACATTTTGGAAGATGTGAACAAATGTGTCATTGCTCTCCAAGAGAAGG
ATGTGGATGGCCTGGACCGCACAGCTGGTGCAATTCGAGGCCGGGCAGCCCGGGTCATTCACGTAGTCAC
CTCAGAGATGGACAACTATGAGCCAGGAGTCTACACAGAGAAGGTTCTGGAAGCCACTAAGCTGCTCTCC
AACACAGTCATGCCACGTTTTACTGAGCAAGTAGAAGCAGCCGTGGAAGCCCTCAGCTCGGACCCTGCCC
AGCCCATGGATGAGAATGAGTTTATCGATGCTTCCCGCCTGGTATATGATGGCATCCGGGACATCAGGAA
AGCAGTGCTGATGATAAGGACCCCTGAGGAGTTGGATGACTCTGACTTTGAGACAGAAGATTTTGATGTC
AGAAGCAGGACGAGCGTCCAGACAGAAGACGATCAGCTGATAGCTGGCCAGAGTGCCCGGGCGATCATGG
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CCCCGACTCGGCTTGCAAGCAGGACCTGCTGGCCTACCTGCAACGCATCGCCCTCTACTGCCACCAGCTG
AACATCTGCAGCAAGGTCAAGGCCGAGGTGCAGAATCTCGGCGGGGAGCTTGTTGTCTCTGGGGTGGACA
GCGCCATGTCCCTGATCCAGGCAGCCAAGAACTTGATGAATGCTGTGGTGCAGACAGTGAAGGCATCCTA
CGTCGCCTCTACCAAATACCAAAAGTCACAGGGTATGGCTTCCCTCAACCTTCCTGCTGTGTCATGGAAG
ATGAAGGCACCAGAGAAAAAGCCATTGGTGAAGAGAGAGAAACAGGATGAGACACAGACCAAGATTAAAC
GGGCATCTCAGAAGAAGCACGTGAACCCGGTGCAGGCCCTCAGCGAGTTCAAAGCTATGGACAGCATC

AGCGGACCGACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC
TGGATTACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

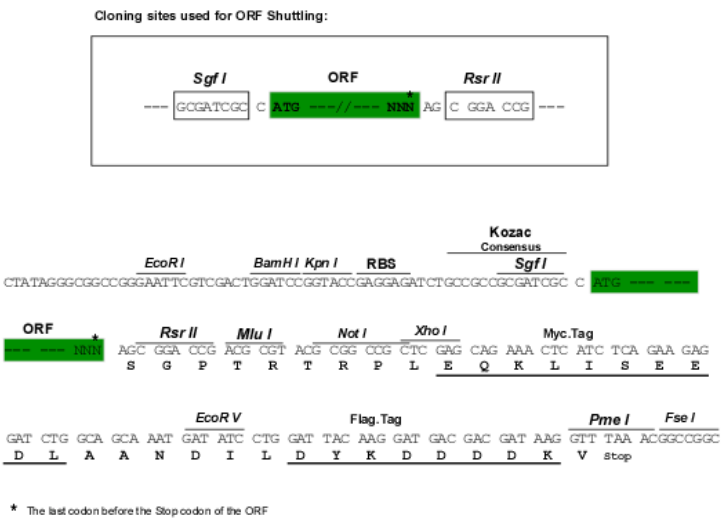
>RC238779 representing NM_001290312
Red=Cloning site Green=Tags(s)

MTKKTRDLRRQLRKAVMDHVSDSFLETNVPLLVLIEAAKNGNEKEVKEYAQVFREHANKLIEVANLACSI
SNNEEGVKLVRMSASQLEALCPQVINAALALAAKPQSKLAQENMDLFKEQWEKQVRVLTDAVDDITSIDD
FLAVSENHILEDVNKCVIALQEKDVDGLDRTAGAIRGRAARVIHVVTSEMDNYEPGVYTEKVLEATKLLS
NTVMPRFTEQVEAAVEALSSDPAQPMDENEFIDASRLVYDGIRDIRKAVLMIRTPEELDDSDFETEDFDV
RSRTSVQTEDDQLIAGQSARAIMAQLPQEQKAKIAEQVASFQEEKSKLDAEVSKWDDSGNDIIVLAKQMC
MIMMEMTDFTRGKGPLKNTSDVISAAKKIAEAGSRMDKLGRTIADHCPDSACKQDLLAYLQRIALYCHQL
NICSKVKAEVQNLGGELVVSGVDSAMSLIQAAKNLMNAVVQTVKASYVASTKYQKSQGMASLNLPAVSWK
MKAPEKKPLVKREKQDETQTKIKRASQKKHVNPVQALSEFKAMDSI

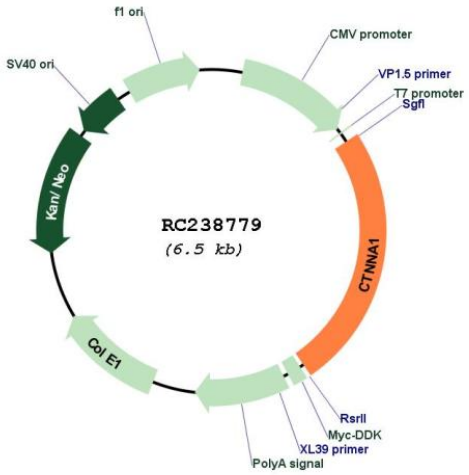
SGPTRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-RsrII

Cloning Scheme:



Plasmid Map:



ACCN:	NM_001290312
ORF Size:	1608 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:	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_001290312.1, NP_001277241.1
RefSeq Size:	3121 bp
RefSeq ORF:	1611 bp
Locus ID:	1495
UniProt ID:	P35221
Cytogenetics:	5q31.2
Protein Families:	Druggable Genome
Protein Pathways:	Adherens junction, Arrhythmogenic right ventricular cardiomyopathy (ARVC), Endometrial cancer, Leukocyte transendothelial migration, Pathways in cancer, Tight junction
MW:	60 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]