

Product datasheet for RC221104

CNN2 (NM_004368) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	CNN2 (NM_004368) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	CNN2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC221104 representing NM_004368 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGAGCTCCACGCAGTTCAACAAGGGCCCTCGTACGGGCTGTCGGCCGAGGTCAAGAACCGGCTCCTGT
CCAAATATGACCCCAAGGAGGAGGAGCTCCGCACCTGGATCGAGGGACTCACCGCCTCTCCATCGG
CCCCGACTTCCAGAAGGGCCTGAAGGATGGAATATCTTATGCACACTCATGAACAAGCTACAGCCGGGC
TCCGTCCCCAAGATCAACCGCTCCATGCAGAAGTGGCACCAGCTAGAAAACCTGTCCAATTCAAGG
CCATGGTCAGTACGGCATGAACCTGTGGACCTGTTTCGAGGCCAACGACCTGTTTGAGAGTGGAACAT
GACGCAGGTGCAGGTGTCTTCTCGCCCTGGCGGGAAGGCCAAGACTAAGGGGCTGCAGAGCGGGGTG
GACATTGGCGTCAAGTACTCGGAGAAGCAGGAGCGGAATTTTCGACGATGCCACCATGAAGGCTGGCCAGT
GCGTCATCGGGCTGCAGATGGGCACCAACAAATGCGCCAGCCAGTCCGGCATGACTGCCTACGGCAGGAG
AAGGCATCTCTATGACCCCAAGAACCATATCTGCCCCCATGGACCACTCGACCATCAGCCTCCAGATG
GGCAGCAACAAGTGCAGCCAGGTTGGCATGACGGCTCCCGGACCCGGCGGCACATCTATGATACCA
AGCTGGGAACCGACAAGTGTGACAACCTCTCCATGTCCCTGCAGATGGGTACACGCAGGGCGCCAACCA
GAGCGGCCAGGTCTTCGGCTGGCCGGCAGATATATGACCCCAAGTACTGCCCGCAAGGCACAGTGGCC
GATGGGGTCCCTCGGGACCGGCGACTGCCCGACCCGGGGAGGTCCCTGAATATCCCCCTTACTACC
AGGAGGAGGCCGGCTAC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC221104 representing NM_004368
Red=Cloning site Green=Tags(s)

MSSTQFNKGPSYGLSAEVKNRLLSKYDPQKEAELRTWIEGLTGLSIGPDFQKGLKDGITLCTLMNKLQPG
 SVPKINRSMQNWHLLENLSNFIKAMVSYGMNPVDLFEANDLFESGNMTQVQVSLALAGKAKTKGLQSGV
 DIGVKYSEKQERNFDDATMKAGQCVIQLQMGTNKASQSGMTAYGTRRHLYDPKNHILPPMDHSTISLQM
 GTNKCASQVGMTAPGTRRHIYDTKLGTDKCDNSSMSLQMGYTTQGANQSGQVFFGLGRQIYDPKYCPQGTVA
 DGAPSGTGDCPDGPEVPEYPPYYQEAGY

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6484_e02.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_004368

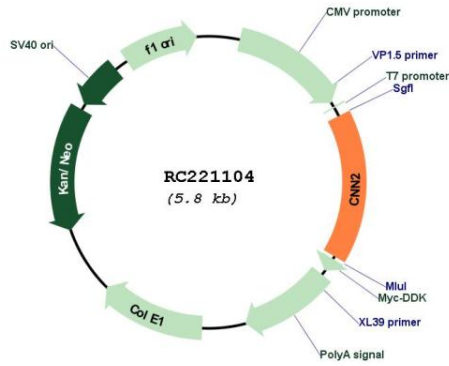
ORF Size: 927 bp

OTI Disclaimer: 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.

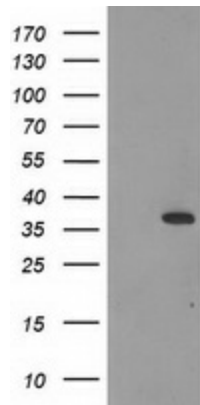
The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in 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:	<u>NM_004368.1</u>
RefSeq Size:	2478 bp
RefSeq ORF:	930 bp
Locus ID:	1265
UniProt ID:	<u>Q99439</u>
Cytogenetics:	19p13.3
Domains:	calponin, CH
MW:	33.5 kDa
Gene Summary:	The protein encoded by this gene, which can bind actin, calmodulin, troponin C, and tropomyosin, may function in the structural organization of actin filaments. The encoded protein could play a role in smooth muscle contraction and cell adhesion. Several pseudogenes of this gene have been identified, and are present on chromosomes 1, 2, 3, 6, 9, 11, 13, 15, 16, 21 and 22. Alternative splicing results in multiple transcript variants encoding different isoforms. [provided by RefSeq, Jan 2015]

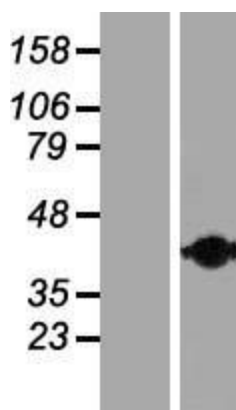
Product images:



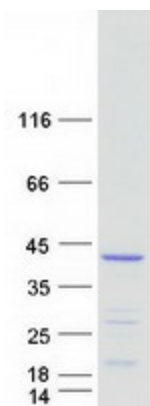
Circular map for RC221104



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY CNN2 (Cat# RC221104, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-CNN2 (Cat# [TA503688]). Positive lysates [LY418024] (100ug) and [LC418024] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY418024]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC221104 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified CNN2 protein (Cat# [TP321104]). The protein was produced from HEK293T cells transfected with CNN2 cDNA clone (Cat# RC221104) using MegaTran 2.0 (Cat# [TT210002]).