

Product datasheet for **RC221521**

CNNM2 (NM_017649) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	CNNM2 (NM_017649) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	CNNM2
Synonyms:	ACDP2; HOMG6; HOMGSMR
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC221521 representing NM_017649
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGATTGGCTGTGGCGCTTGTGAACCCAAAGTAAAGATGGCGGGCGGGCAGGCAGCCGCCCACTGCCCA
 CTTGGAAGATGGCGGCGCGCCGACGCTCAGCGCTCGCGGCCGGGGATCCTGCAGGCGGCTGCGGGCG
 GCTGCTGCCGCTGCTCCTGCTGAGCTGCTGCTGCGGTGCGGGCGGCTGCGCAGCGGTGGCGGAGAATGAG
 GAGACGGTGATCATCGGGCTGCGACTGGAGGACACGAACGACGTGTGTTTCATGGAAGGGGGGCGCTGC
 GGGTGAGCGAACGGACCCGGGTCAAGCTGCGGGTGTACGGGCAGAACATCAATAACGAGACGTGGTCCCG
 CATCGCCTTACCAGACGAGCGGGCGGCCACAGCCCGGGGAGCGGGGCTGGGGGGCCCCGCGCCG
 CCAGAGCCGACAGCGGCCCCAGCGATCGGCATCCGCACCTCAGACATCATCATCTTGCCCCACATCA
 TTCTCAACCGCCGACCTCGGGCATCATCGAGATCGAGATCAAACCGCTACGCAAGATGGAGAAGAGCAA
 GTCCTATTACCTGTGACGTGCTCTCCACGCCGCCCTGGGCGCCGGCGGCTCGGGGTCCACGGGTGGC
 GCCGTGCGGGGCAAGGGTGGCTCGGGGTGGCCGGGCTCCCGCCGCCCGTGGGCCGAGACCACCTGGA
 TTTACCACGACGGCGAGGACACCAAGATGATCGTAGGCGAAGAGAAGAAGTTCCTGCTGCCCTTCTGGCT
 GCAGGTGATCTTCATTTGCTGCTGCTGTGCCTGTGCGGCATGTTGAGCGGCTCAACCTGGGGCTCATG
 GCCCTGGACCCGATGGAGCTGCGCATCGTGCAGAACTGCGGCACGGAGAAGGAGAAGAATTACGCCAAGC
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 CACCACGCTCACCATCCTGCTCGACGACATCGCCGGCTCGGGCCTCGTGGCCGTGGTAGTCTCCACCATC
 GGTATCGTCATCTTCGGAGAGATCGTCCCCAGGCCATCTGCTCCCGGCATGGCTGGCTGTGGGGGCA
 ACACCTCTTCCACCAAGTTTTTCATGATGATGACCTTCCCCGCTTCTACCCGGTCAAGGATGCTGGG
 GGACTGCGTCTGGGCCAGGAGATAGGCACCGTCTATAACCGGGAAAACTGCTGGAGATGCTCCGGGTC
 ACCGATCCCTACACGACCTCGTTAAGGAGGAGCTGAACATCATCCAAGGGCGCTGGAGCTCCGACCA
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 ATCGTGGACCTGCTGTTGTCAAAGACTTGGCCTTCGTGGATCCCAGTACTGTACCCCCCTGAAAACCA
 TCACCAAAATTTATAACCAACCCCTTGACTTTGTTTTCAATGACACCAAGTTGGACGCTATGCTGGAAGA
 ATTTAAGAAAGGTAATCTCACCTGGCTATCGTGCAGCGGTAAACAATGAGGGAGAAGGGGATCCATTT
 TATGAAGTCTGGGAATCGTACCTTAGAAGATGTGATTGAAGAATCATCAAATCTGAGATTCTTGATG
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 TGCCTTAAGCAGACAGACAGTGAAGGTTAAAATATCACCACAGCTCCTCCTGGCCATGCACCGT
 TTCTAGCAACAGAAGTAGAAGCATTAGCCCATCCCAGATGTCAGAGAAGATCCTTCTAAGGCTGCTAA
 AGCACCCCAATGTCATCCAGGAAGTAAATATGATGAGAAGAACAAGAAAGCCCGAATACTACCTCTA
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 GAAGGTATGAAGTTTGAAGCGAGCGCTTCTCATACTATGGCGTATGGCCCTGACAGCCTCTCCAGTTC
 CTTTGTCCCTGTCTGTACCTTTGTTGTGTCAGCAGAACAGAGTTGTTAGCAGCAGGTTCTCCAGGTGAAA
 TAAGTCCCCTCTCGCCATGTGGCTTGAATCACTCAGACTCTCTCAGTCAAGCGACCGGATTGACGCC
 GTCACACCAACTGGGGAGCAGCAATAACAGCTCAATTCTTCGCTCCTCAAGTCTACATCCCGGATT
 ACTCGGTGCGAGCCCTTTCGGATCTGCAGTTTGTAAAGATCTCAAGACAGCAATACCAAAATGCCTTGAT
 GGCATCCCGGATGGACAAAACCCCCAGTCTTCAGACAGTAAAACACTAAAATCGAATTGACTCTTACG
 GAGCTGCATGACGGTTGCCAGACGAGACAGCCAACTGCTCAACGAACAGAAGTGTGTGACGCACAGTA
 AGGCCAACACAGCCTGCACAACGAAGGCGCCATC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC221521 representing NM_017649
 Red=Cloning site Green=Tags(s)

MIGCGACEPKVKMAGGQAAAAALPTWKMAARRSLSARGRGILQAAAGRLLPLLLLSCCCGAGGCAAVGENE
 ETVIIGLRLEDTNDVSMEGGALRVSERTRVKLRVYQINNETWSRIAFTEHERRRHSPGERLGGPAP
 PEPDSGPQRCGIRTSDIILPHIILNRRTSGLIEIEIKPLRKMEKSKSYLCTSLSTPALGAGGSGSTGG
 AVGGKGGSGVAGLPPPPWAETTWIYHDGEDTKMIVGEEKFLLPFWLQVIFISLLCLSGMFSGLNLGLM
 ALDPMELRIVQNGTEKEKNYAKRIEPVRRQGNVLLCSLLGNVLYNTTLLTILLDDIAGSGLVAVVSTI
 GIVIFGEIVPQAICSRHGLAVGANTIFLTKFFMMTFPASYPVSKLLDCVLGQEI GTVYVYREKLEMLRV
 TDPYNDLVKEELNIIQGALELRKTVEDVMTPLRDCFMITGEAILDFNTMSEIMESGYTRIPVFEGERSN
 IVDLLFVKDLAFVDPDDCTPLKTKFYNHPLHFVFNDFKLDAMLEEFKKGKSHLAIVQRVNNEGEGDPF
 YEVLGIVTLEDVIEEIKSEILDETDLYDNRTKKKVAHREKQDFSAFKQTDSEMVKKISPQLLAMHR
 FLATEVEAFSPSQMSEKILLRLLKHPNVIQELKYDEKNKAPEYLYQRNKPVDYFVILIQGKVEVEAGK
 EGMKFEASAFSYGVMALTASPVPLSLRFTFVSRTELLAAGSPGENKSPPRPCGLNHSDSLRSRDRIDA
 VPTPLGSSNNQLNSSLQVYIPDYSVRALSDDLQFVKISRQYQNALMASRMDKTPQSSDSENTKIELTLT
 ELHDGLPDETANLLNEQNCVTHSKANHSLHNEGAI

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk8009_f01.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

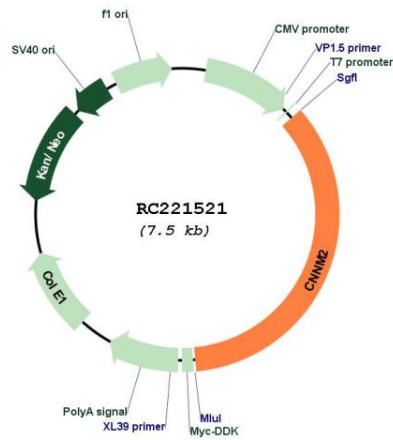
Cloning sites used for ORF Shuttling:



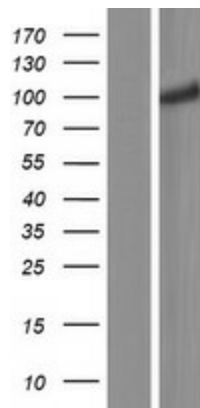
* The last codon before the Stop codon of the ORF

ACCN:	NM_017649
ORF Size:	2625 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_017649.5
RefSeq Size:	4071 bp
RefSeq ORF:	2628 bp
Locus ID:	54805
UniProt ID:	Q9H8M5
Cytogenetics:	10q24.32
Domains:	CBS, DUF21
Protein Families:	Transmembrane
MW:	96.4 kDa
Gene Summary:	This gene encodes a member of the ancient conserved domain containing protein family. Members of this protein family contain a cyclin box motif and have structural similarity to the cyclins. The encoded protein may play an important role in magnesium homeostasis by mediating the epithelial transport and renal reabsorption of Mg ²⁺ . Mutations in this gene are associated with renal hypomagnesemia. Alternatively spliced transcript variants encoding multiple isoforms have been observed for this gene. [provided by RefSeq, Dec 2011]

Product images:



Circular map for RC221521



Western blot validation of overexpression lysate (Cat# [LY413647]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC221521 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).