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Product datasheet for RC211148

Cyclin A2 (CCNA2) (NM_001237) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Cyclin A2 (CCNA2) (NM_001237) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Cyclin A2
Synonyms:	CCN1; CCNA
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC211148 representing NM_001237
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGTTGGGCAACTCTGCGCCGGGGCCTGCGACCCGCGAGGCGGGCTCGGCGCTGCTAGCATTGCAGCAGA
CGGCGCTCCAAGAGGACCAGGAGAATATCAACCCGGAAAAGGCAGCGCCCGTCCAACAACCGCGGACCCG
GGCCGCGCTGGCGGTACTGAAGTCCGGGAACCCGCGGGGTCTAGCGCAGCAGCAGAGGCCGAAGACGAGA
CGGGTTGCACCCCTTAAGGATCTTCCTGTAAATGATGAGCATGTCACCGTTCCTCCTTGGAAAGCAAACA
GTAAACAGCCTGCGTTCACCATTCATGTGGATGAAGCAGAAAAAGAAGCTCAGAAGAAGCCAGCTGAATC
TCAAAAAATAGAGCGTGAAGATGCCCTGGCTTTTAATTCAGCCATTAGTTTACCTGGACCCAGAAAACCA
TTGGTCCCTCTTGATTATCCAATGGATGGTAGTTTTGAGTCACCACATACTATGGACATGTCAATTGTAT
TAGAAGATGAAAAGCCAGTGAGTGTTAATGAAGTACCAGACTACCATGAGGATATTCACACATACCTTAG
GGAAATGGAGGTTAAATGTAAACCTAAAGTGGGTTACATGAAGAAACAGCCAGACATCACTAACAGTATG
AGAGCTATCCTCGTGGACTGGTTAGTTGAAGTAGGAGAAGAATATAAACTACAGAATGAGACCCTGCATT
TGGCTGTGAACTACATTGATAGGTTCCTGTCTTCCATGTCAGTGCTGAGAGGAAAACTTCAGCTTGTGGG
CACTGCTGCTATGCTGTTAGCCTCAAAGTTTGAAGAAATATACCCCCCAGAAGTAGCAGAGTTTGTGTAC
ATTACAGATGATACCTACACCAAGAAACAAGTTCTGAGAATGGAGCATCTAGTTTTGAAAGTCCTTACTT
TTGACTTAGCTGCTCCAACAGTAAATCAGTTTCTTACCCAATACTTTCTGCATCAGCAGCCTGCAAACTG
CAAAGTTGAAAGTTTAGCAATGTTTTTGGGAGAATTAAGTTTGATAGATGCTGACCCATACCTCAAGTAT
TTGCCATCAGTTATTGCTGGAGCTGCCTTTCATTTAGCACTCTACACAGTCACGGGACAAAGCTGGCCTG
AATCATTAATACGAAAGACTGGATATACCCTGGAAAGTCTTAAGCCTTGTCTCATGGACCTTCACCAGAC
CTACCTCAAAGCACCACAGCATGCACAACAGTCAATAAGAGAAAAGTACAAAAATTCAAAGTATCATGGT
GTTTCTCTCCTCAACCCACCAGAGACACTAAATCTG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC211148 representing NM_001237
Red=Cloning site Green=Tags(s)

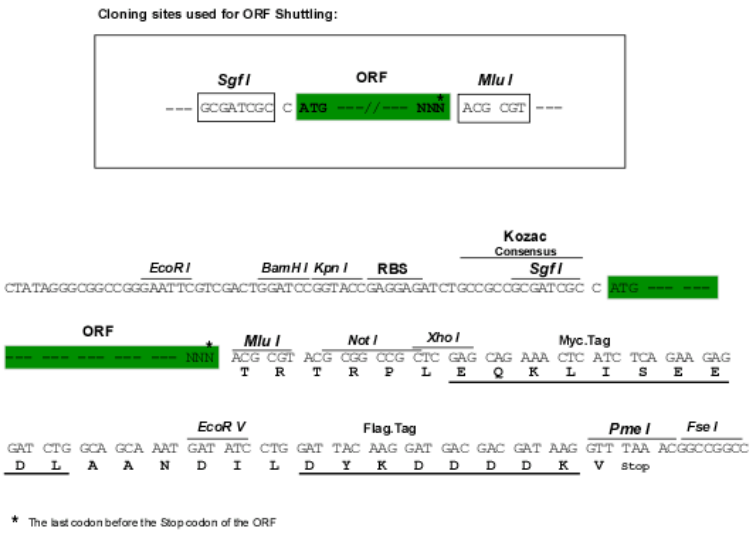
MLGNSAPGPATREAGSALLALQQTALQEDQENINPEKAAPVQQPRTRAALAVLKSGNPRGLAQQQRPKTR
RVAPLKDLPVNDEHVTVPPWKANSKQPAFTIHVDEAEKEAQKKPAESQKIEREDALAFNSAISLPGPRKP
LVPLDYPMDGSFESPHTMDMSIVLEDEKPVSVNEVPDYHEDIHTYLREMEVKCKPKVGYMKKQPDITNSM
RAILVDWLVEVGEEYKLQNETLHLAVNYIDRFLSSMSVLRGKLQLVGTAAMLLASKFEEIYPPEVAEFVY
ITDDTYTKKQVLRMEHLVLKVLTFDLAAPTVNQFLTQYFLHQQPANCKVESLAMFLGELSLIDADPYLKY
LPSVIAGAAFHLALYTVTGQSWPESLIRKTGYTLESLKPCLMDLHQTYLKAPQHAQQSIREKYKNSKYHG
VSLLNPPETLNL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mg2522_d01.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001237

ORF Size: 1296 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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: NM_001237.4

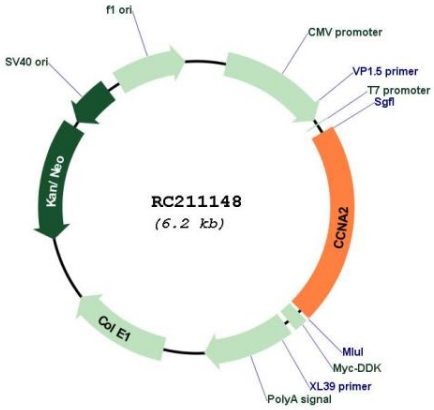
RefSeq Size: 1682 bp

RefSeq ORF: 1299 bp

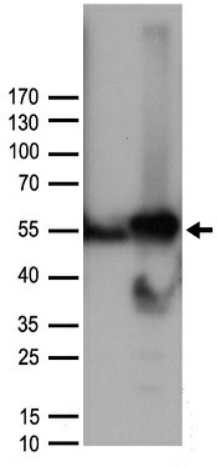
Locus ID: 890

UniProt ID:	P20248
Cytogenetics:	4q27
Domains:	cyclin_C, CYCLIN, cyclin
Protein Families:	Druggable Genome, Stem cell - Pluripotency
Protein Pathways:	Cell cycle, Progesterone-mediated oocyte maturation
MW:	48.4 kDa
Gene Summary:	The protein encoded by this gene belongs to the highly conserved cyclin family, whose members function as regulators of the cell cycle. This protein binds and activates cyclin-dependent kinase 2 and thus promotes transition through G1/S and G2/M. [provided by RefSeq, Aug 2016]

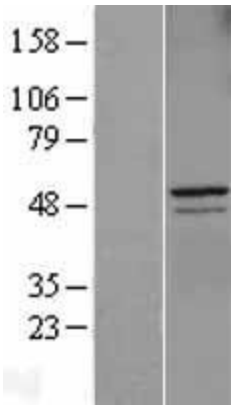
Product images:



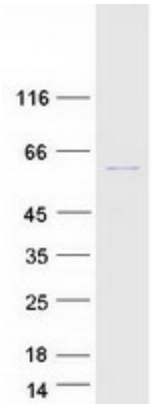
Circular map for RC211148



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY CCNA2 (Cat# RC211148, 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-CCNA2 antibody (Cat# [TA890057]). Positive lysates [LY400494] (100ug) and [LC400494] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY400494]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC211148 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified CCNA2 protein (Cat# [TP311148]). The protein was produced from HEK293T cells transfected with CCNA2 cDNA clone (Cat# RC211148) using MegaTran 2.0 (Cat# [TT210002]).