

## Product datasheet for **MG218654**

### **Cdca2 (NM\_175384) Mouse Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Cdca2 (NM_175384) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Cdca2
Synonyms:	2610311M19Rik; AI586158
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>MG218654 representing NM\_175384  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGATGCGAGTTCACACGACAAGCCTCTCTGAATCCAAGGAGTGTGTCTTAATAATCTGAAAATG  
 ACGTTTTTAGATTGGAACTGAACCGTTTGTGACTCCTCAGAAGCATGTAGCAGATGCGACTCCTAATCT  
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 CTGTTGGTGTGCGGGGCTCTCCAGAAACCAATTGCCTGATCCGATTATTGCCAGCAGCGAAAACCTAAA  
 GAAGGCTGTGCTCTCCGTTGGCAGGAGACCCCACTTCGAGGGTAGCCCAAGACTGTATCGAAATGCC  
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 AGATGCTAACAGTGCCACCCAGCCACCAGACTGCAAGAGAAAACCTCGCTCAAGGGAGAAAGCGCTCAG  
 CTGCC

**ACGCGT**ACGCGGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >MG218654 representing NM\_175384  
 Red=Cloning site Green=Tags(s)

MDASSHDKPLSESKECVLNSENDVFR LGTEPFVTPQKHVADATPNLCTPDTFKSPLDFTTVTVEQLGIT  
 PESFVKTSSGKSTSSLQKARRRSTVGVRGSPETNCLIRFIAQQRNLKKA VLSPLAREPHFEGSPRLYRNA  
 SVLRERMSAFRS AFHSIQETKMASSPSAAEADGESRISDLTRKEDLLEYQQSGFPVNSSSKRRRISQDS  
 PDNYLSGTKALADEACAGGASTDLAEKSPDIGSAQP GCMAAPLPELRETSQGLAVTDCVEGPVTPPLSSGT  
 ATATRSPETPMC GSSSPSAKTTATRSPATPVCGSSTPSAKTFVLR SVLKKPGKLFSENGKESNL CDDGAH  
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 PLQSPVHEQFLQPNFDDKEENLENI EPPQGSFANLSLSKSSLSETPPGTNTCSSLNKDEEII CSIVRPTR  
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 PRDIASKKPLLSP IPELPEVSEATPLADCTQGTSSDDFNKCGQLEEVNSFEIPTQRKRRLPQKADSPELD  
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 LESVQLIEELSNTIEQSFQRTSSKTKVRRSTR LQRDLENTGLVWLSPPSTLQKPRRRMTICTLDSRGFE  
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 LP

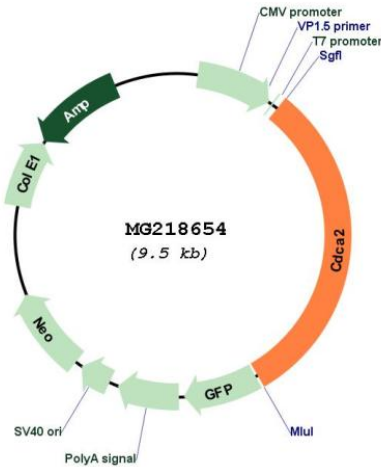
TRTRPLE - GFP Tag - V

Restriction Sites:

SgfI-MluI

Cloning Scheme:



**Plasmid Map:**


**ACCN:** NM\_175384

**ORF Size:** 2946 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\\_175384.4](#), [NP\\_780593.3](#)

**RefSeq Size:** 3568 bp

**RefSeq ORF:** 2949 bp

**Locus ID:** 108912

**UniProt ID:** [Q14B71](#)

**Cytogenetics:** 14 D1

**Gene Summary:**

Regulator of chromosome structure during mitosis required for condensin-depleted chromosomes to retain their compact architecture through anaphase. Acts by mediating the recruitment of phosphatase PP1-gamma subunit (PPP1CC) to chromatin at anaphase and into the following interphase. At anaphase onset, its association with chromatin targets a pool of PPP1CC to dephosphorylate substrates (By similarity).[UniProtKB/Swiss-Prot Function]