

## Product datasheet for **RC211342**

### Chimaerin 2 (CHN2) (NM\_004067) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Chimaerin 2 (CHN2) (NM_004067) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Chimaerin 2
Synonyms:	ARHGAP3; BCH; CHN2-3; RHOGAP3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>RC211342 ORF sequence  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGCAGCGTCCAGCAACTCCAGCCTGTCCGGCTCGTCGGTGTCTCCGATGCTGAAGAATACCAGCCTC  
 CTATATGGAAATCATACTTATATCAGTTACAGCAAGAGGCACCTCGTCCCAAGAGAATCATTGTCTCG  
 GGAGTGGAAAACAGACCAAAATATTATGGAAGAGAGTTTCATGGGATCATCTCTCGGGAGCAGGCGGAT  
 GAGCTTCTGGAGGCGTGGAGGGTGCCTACATCCTTAGAGAAAAGCCAGCGGCAACCAGGATGCTACACGC  
 TGGCTCTCAGGTTTGGAAACCAGACCTTAAACTACAGGCTCTCCACGACGGGAAACACTTTGTGGTGA  
 GAAGAGGTTTGTGTCGATTCATGATCTGGTGACAGATGGCTTGATAACACTGTACATAGAAAACAAAAGCT  
 GCCGAGTACATTTCAAAAATGACAACTAACCCATCTATGAACACATTGGATATGCCACCCTACTCAGAG  
 AAAAGTATCCAGAAGGCTGAGCAGGTCTAAAAATGAACCAAGAAAAACAAACGTCACACATGAAGAACA  
 CACAGCGGTGAAAAGATCTCCTCCCTGGTTCGAAGGGCTGCCCTCACACACAACGACAACCACTTCAAT  
 TATGAGAAGACACACAACTTAAGGTCCACACGTTCCGAGGCCACACTGGTGTGAATATTGTGCCAATT  
 TCATGTGGGGGCTCATCGCCAAGGGGTCCGGTGTCTCAGACTGTGGATTGAACGTACACAAAACAGTGTT  
 CAAGCAGGTTCCCAATGACTGCCAACCTGATCTCAAGAGGATCAAGAAAGTACTGTTGTGACCTCACA  
 ACATTTGTGAAGGCTCACAACACTCAGAGACCCATGGTGGTAGACATATGCATTCCGGAAATTAAGCAA  
 GAGGATTAATAATCGGAAGGCCTTACAGAGTCTCTGGGTTCACTGAACACATTGAAGATGTCAAAATGGC  
 ATTTGACAGAGATGGTAAAAGGCCGATATCTGCCAATGTCTATCCAGACATAAACATCATCACTGGA  
 GCCCTTAAACTGTATTTACAGAGACTTACCATCCCTGTATCACATATGATACCTATTCCAAATTTATAG  
 ATGCAGCAAAAATCTCCAATGCAGATGAGAGGCTGGAAGCCGTCATGAAGTGCTGATGCTGCTGCCCTC  
 TGCCACTATGAAACCCCTCCGGTACCTAATGATCCACCTCAAAAAGGTTACTATGAATGAAAAGACAAT  
 TTCATGAATGCAGAAAATCTGGGATCGTGTGGGCCCACTCTGATGAGGCCCCCTGAGGACAGCACCC  
 TGACCACCCTGCATGATATGCGGTACCAAAAGCTGATTGTGCAGATTTTAAAGAAAACGAAGACGTTTT  
 ATTC

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC211342 protein sequence  
 Red=Cloning site Green=Tags(s)

MAASSNSLSGSSVSSDAEEYQPPIWKSYLYQLQEQEAPRPKRIICPREVENRPKYVYGRFHGIIISREQAD  
 ELLGGVEGAYILRESQRQPGCYTLALRFGNQTLNYRLFHDGKHFVGEKRFESIHDLVTDGLITLYIETKA  
 AEYISKMTTNPITYEHIGYATLLREKVSRRLSRSKNEPRKTNVTHEEHTAVEKISSLVRRALHNDNHNFN  
 YEKTHNFKVHTFRGPHWCEYCANFMWGLIAQGVRCSDCLNVHKQCSKHPNDCQPDLKRIKKVYCCDLT  
 TLVKAHNTQRPVVDICIREIEARGLKSEGLYRVSGFTEHIEDVKMAFDRDGEKADISANVYPDINIITG  
 ALKLYFRDLPIPITYDYTSKFIDAAKISNADERLEAVHEVLMMLPPAHYETLRYLMIHLKKVTMNEKDN  
 FMNAENLIVFGPTLMRPPEDSTLTTLHDMRYQKLIQILINEDVLF

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mk6589\\_d07.zip](https://cdn.origene.com/chromatograms/mk6589_d07.zip)

**Restriction Sites:**

Sgfl-Mlul

**Cloning Scheme:**


**ACCN:** NM\_004067

**ORF Size:** 1404 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\\_004067.4](#)

**RefSeq Size:** 3461 bp

**RefSeq ORF:** 1407 bp

**Locus ID:** 1124

**UniProt ID:** [P52757](#)

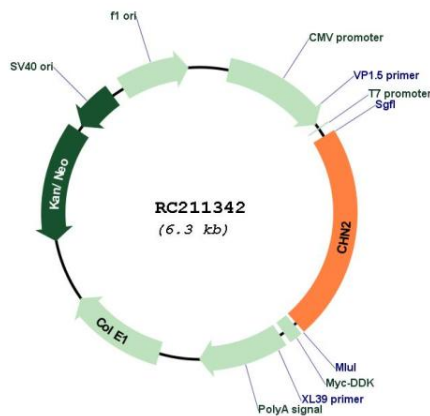
**Cytogenetics:** 7p14.3

**Domains:** RhoGAP, SH2, DAG\_PE-bind

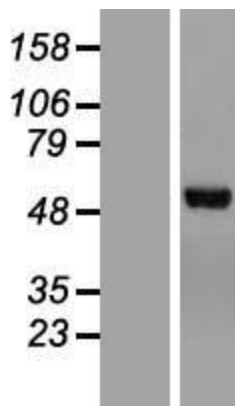
**MW:** 53.9 kDa

**Gene Summary:** This gene encodes a guanosine triphosphate (GTP)-metabolizing protein that contains a phorbol-ester/diacylglycerol (DAG)-type zinc finger, a Rho-GAP domain, and an SH2 domain. The encoded protein translocates from the cytosol to the Golgi apparatus membrane upon binding by diacylglycerol (DAG). Activity of this protein is important in cell proliferation and migration, and expression changes in this gene have been detected in cancers. A mutation in this gene has also been associated with schizophrenia in men. Alternative transcript splicing and the use of alternative promoters results in multiple transcript variants. [provided by RefSeq, May 2014]

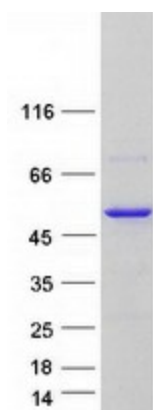
**Product images:**



Circular map for RC211342



Western blot validation of overexpression lysate (Cat# [LY418233]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC211342 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified CHN2 protein (Cat# [TP311342]). The protein was produced from HEK293T cells transfected with CHN2 cDNA clone (Cat# RC211342) using MegaTran 2.0 (Cat# [TT210002]).