

## Product datasheet for **RC202677**

### Grancalcin (GCA) (NM\_012198) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Grancalcin (GCA) (NM_012198) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Grancalcin
Synonyms:	GCL
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC202677 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGCCTACCCGGGATACGGAGGAGGGTTTGGAAATTTAGCATTAGGTGCCAGGAATGCAGATGGGAC  
AGCCAGTGCCAGAAACAGGCCAGCTATACTCCTCGATGGATACTCTGGCCAGCATATTCAGACTTA  
TTCCTCAGCTGGTGACTCCGTGTATACTTACTTCAGTGTCTGCTGGACAGGATGGTGAAGTGGATGCT  
GAAGAATTTCAGAGATGTTTGACACAGTCTGGAATTAATGGAATTACTCTCCCTTCAGTTGGAAACCT  
GCAGAATTATGATTGCCATGTTGGATAGAGATCACACAGGAAAAATGGGATTTAATGCATTCAAAGAGCT  
ATGGGCAGCTCTTAATGCCTGGAAGGAAAACCTCATGACTGTTGATCAAGATGGAAGTGGCACAGTAGAA  
CATCATGAGTTGCGTCAAGCCATTGGTCTTATGGGTTATAGGTTGAGTCCTCAAACATTAACATAATTG  
TTAAACGTTATAGCAAGAATGGCAGAAATTTCTTTGATGATTATGTTGCTTGCTGTGGAAGCTTCGAGC  
ATTGACAGATTTCTTTAGGAAAAGAGACCATTGCAACAAGGGTCTGCGAATTTTCATATATGACGATTTT  
TTGCAGGGCACTATGGCAATT

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC202677 protein sequence  
 Red=Cloning site Green=Tags(s)

MAYPGYGGGFGNFSIQVPGMQMQPVPETGPAILLDGYSGPAYSPTYSSAGDSVYTYFSAVAGQDGEVDA  
 EELQRCLTQSGINGTYSFSLCTCRIMIAMLDRDHTGKMGFNAFKELWAALNAWKENFMTVDQDGSQTVE  
 HHELRQAIGLMGYRLSPQTLTTIVKRYSKNGRIFFDDYVACCVKLRLALTDFFRKRDLQQGSANFIYDDF  
 LQGTMAI

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6414\\_g06.zip](https://cdn.origene.com/chromatograms/mk6414_g06.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_012198

**ORF Size:** 651 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\\_012198.5](#)

**RefSeq Size:** 3241 bp

**RefSeq ORF:** 654 bp

**Locus ID:** 25801

**UniProt ID:** [P28676](#)

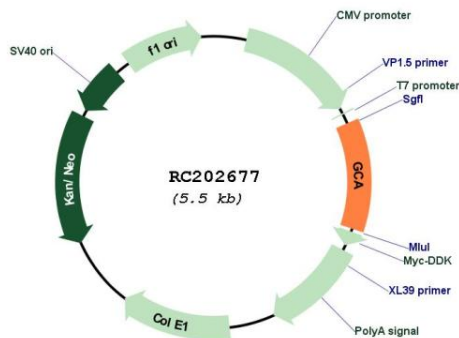
**Cytogenetics:** 2q24.2

**Domains:** EFh

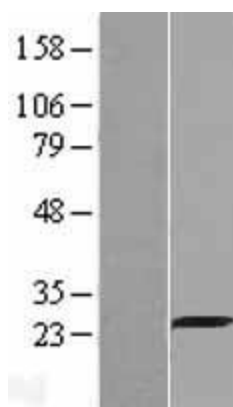
**MW:** 24 kDa

**Gene Summary:** This gene encodes a calcium-binding protein that is abundant in neutrophils and macrophages. In the absence of divalent cation, this protein localizes to the cytosolic fraction; with magnesium alone, it partitions with the granule fraction; and in the presence of magnesium and calcium, it associates with both the granule and membrane fractions. Alternative splicing and use of alternative promoters results in multiple transcript variants. [provided by RefSeq, Aug 2016]

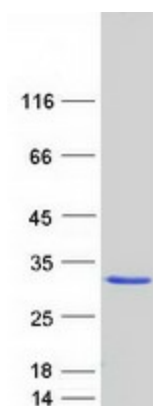
### Product images:



Circular map for RC202677



Western blot validation of overexpression lysate (Cat# [LY415909]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC202677 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified GCA protein (Cat# [TP302677]). The protein was produced from HEK293T cells transfected with GCA cDNA clone (Cat# RC202677) using MegaTran 2.0 (Cat# [TT210002]).