

## Product datasheet for RC200497

### Actin Regulatory Protein CAPG (CAPG) (NM\_001747) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Actin Regulatory Protein CAPG (CAPG) (NM_001747) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Actin Regulatory Protein CAPG
Synonyms:	AFCP; HEL-S-66; MCP
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC200497 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGTACACAGCCATTCCCAGAGTGGCTCTCCATTCCCAGGCTCAGTGCAGGATCCAGGCCTGCATGTGT  
GGCGGGTGGAGAAGCTGAAGCCGGTGCCTGTGGCGCAAGAGAACCAGGGCGTCTTCTTCGGGGGACTC  
CTACCTAGTGCTGCACAATGGCCAGAAGAGTTTCCCATCTGCACCTGTGGATAGGCCAGCAGTCATCC  
CGGGATGAGCAGGGGGCCTGTGCCGTGCTGGCTGTGCACCTCAACACGCTGCTGGGAGAGCGCCCTGTGC  
AGCACCCGAGGTCAGGGCAATGAGTCTGACCTTTCATGAGCTACTTCCCACGGGGCCTCAAGTACCA  
GGAAGGTGGTGTGGAGTCAGATTTACAAAGACCTCCACAGGAGCCCCAGCTGCCATCAAGAACTCTAC  
CAGGTGAAGGGGAAGAAGAACATCCGTGCCACCGAGCGGGCACTGAACTGGGACAGCTTCAACACTGGGG  
ACTGTTTCATCCTGGACCTGGGCCAGAACATCTTCGCCTGGTGTGGTGGAAAGTCCAACATCCTGGAACG  
CAACAAGGCGAGGGACCTGGCCCTGGCCATCCGGGACAGTGAGCGACAGGGCAAGGCCAGGTGGAGATT  
GTCACTGATGGGAGGAGCCTGCTGAGATGATCCAGGTCTGGGCCCAAGCCTGCTCTGAAGGAGGGCA  
ACCCTGAGGAAGACCTCACAGCTGACAAGGCAAATGCCAGGCCGAGCTCTGTATAAGGTCTCTGATGC  
CACTGGACAGATGAACCTGACCAAGGTGGCTGACTCCAGCCCTTTGCCCTTGAAGTCTGATATCTGAT  
GACTGCTTTGTGCTGGACAACGGGCTCTGTGGCAAGATCTATCTGGAAGGGGGCAAAAGCGAATGAGA  
AGGAGCGCAGGCAGCCCTGCAGGTGGCCGAGGGCTTCATCTCGCGCATGCAGTACGCCCCGAACTCA  
GGTGGAGATTCTGCCTCAGGGCCGTGAGAGTCCCATCTTCAAGCAATTTTCAAGGACTGGAAA

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC200497 protein sequence  
Red=Cloning site Green=Tags(s)

MYTAIPQSGSPFPGSVQDPGLHVWRVEKLPVPVAQENQGVFFSGDSYLVLHNGPEEVSHLHLWIGQSS  
 RDEQGACAVLAVHLNTLLGERPVQHREVDQGNESDLFMSYFPRGLKYQEGGVESAFHKTSTGAPAAIKKLY  
 QVKGKKNIRATERALNWSDFNTGDCFILDLGQNIFAWCGGKSNILERNKARDLALAIRDSERQGKAQVEI  
 VTDGEEPAEMIQVLGPKPALKEGNPEEDLTADKANAQAAALYKVS DATGQMNLTKVADSSPFALELLISD  
 DCFVLDNGLCGKIYIWKGRKANERQAALQVAEGFISRMQYAPNTQVEILPQGRESPIFKQFFKDWK

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6392\\_a09.zip](https://cdn.origene.com/chromatograms/mk6392_a09.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_001747

**ORF Size:** 1044 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\\_001747.1](#)

**RefSeq Size:** 1604 bp

**RefSeq ORF:** 1047 bp

**Locus ID:** 822

**UniProt ID:** [P40121](#)

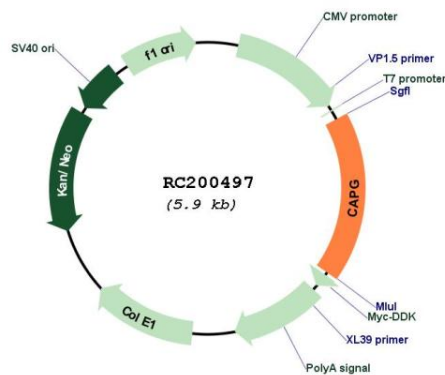
**Cytogenetics:** 2p11.2

**Domains:** GEL, Gelsolin

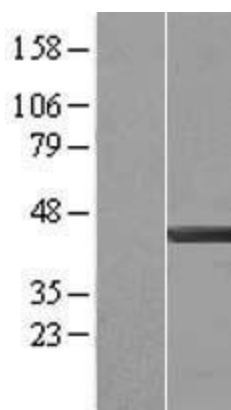
**MW:** 38.5 kDa

**Gene Summary:** This gene encodes a member of the gelsolin/villin family of actin-regulatory proteins. The encoded protein reversibly blocks the barbed ends of F-actin filaments in a Ca<sup>2+</sup> and phosphoinositide-regulated manner, but does not sever preformed actin filaments. By capping the barbed ends of actin filaments, the encoded protein contributes to the control of actin-based motility in non-muscle cells. Alternatively spliced transcript variants have been observed for this gene. [provided by RefSeq, Jan 2012]

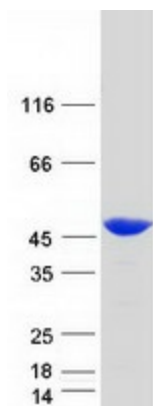
## Product images:



Circular map for RC200497



Western blot validation of overexpression lysate (Cat# [LY419770]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC200497 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified CAPG protein (Cat# [TP300497]). The protein was produced from HEK293T cells transfected with CAPG cDNA clone (Cat# RC200497) using MegaTran 2.0 (Cat# [TT210002]).