

## Product datasheet for **RG201418**

### CCM2 (NM\_031443) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	CCM2 (NM_031443) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	CCM2
Synonyms:	C7orf22; OSM; PP10187
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG201418 representing NM\_031443  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGAAGAGGAGGCAAGAAGGGCAAGAAGCCTGGAATTGTCTCGCCATTTAAACGAGTATTCCTAAAAG  
 GTGAAAAGAGTAGAGATAAGAAAAGCCCATGAGAAGGTGACAGAGAGGCCCTCTGCACACTGTGGTGTT  
 GTCATTGCCTGAGCGCGTCGAGCCAGACAGACTGCTGAGCGACTATATTGAGAAGGAGGTAAGTATTTA  
 GGTCAAGTAACTCCATACCAGGATACCTGAATCCCTCCAGTAGGACTGAAATCCTGCATTTTCATAGACA  
 ATGCAAAGAGAGCCACCAGCTTCCGGGACACTTGACTCAGGAGCAGATGCTGTGCTCAGCCTGTCTGC  
 GTACAACGTCAAGCTGGCTGGAGGGACGGGAGGATATCATCCTCAGGGTGCCCATCCATGACATCGCC  
 GCCGTCTCCTATGTTCCGGATGACGCTGCACACCTGGTGGTCTGAAGACAGCCAGGACCCAGGGATCT  
 CCCCAGCCAGAGTCTGTGTGCGAAAGTTCAGAGGCCCTCAGTGCAGGCTCCCTGTCGGAGAGTGCAGT  
 TGGGCCCTGGAGGCATGCTGCCTGGTATCCTGGCTGCAGAGAGCAAGGTCGCTCGGAGGAGCTTTCG  
 TGCTGTAGGCCAGGCTTCCAGGTTGTTACACGGAGTCCACCATCGACTTTCTGGACAGAGCGATAT  
 TTGATGGGGCCTCTACCCGACCCACCCTGTCCCTGCACAGCGATGACTCTTCTACAAAAGTGGACAT  
 TAAGGAGACCTACGAGGTGGAAGCCAGCACTTTCTGCTTCCCTGAATCTGTGGATGTGGTGGTGCATCA  
 CCCACAGCAAGACCATCAGTGAGAGCGAGCTGAGCGCCAGCGCCACTGAGCTGCTGCAGGACTACATGC  
 TGACGCTGCGCACCAAGCTGTATCACAGGAGATCCAGCAGTTTGCAGCACTGCTGCACGAGTACCGCAA  
 TGGGGCCTCTATCCACGAGTTCTGCATCAACCTGCGGCAGCTCTACGGGACAGCCGCAAGTTCTGCTG  
 CTTGGTCTGAGGCCCTTCATCCCTGAGAAGGACAGCCAGCACTTCGAGAAGTTCCTGGAGACCATTGGCG  
 TGAAGGATGGCCGCGCATCATCACTGACAGCTTTGGCAGGCACCGCGGGCCCTGAGCACCACATCCAG  
 TCCACCACCAATGGGAACAGGGCCACGGGCAGCTCTGATGACCGGTCGGCACCCCTCAGAGGGGATGAG  
 TGGGACCGCATGATCTCGGACATCAGCAGCGACATTGAGGCGCTGGGCTGCAGCATGGACCAGGACTCAG  
 CA

**ACGCGT**ACGCGGCCGCTCGAG – GFP Tag – GTTTAA

**Protein Sequence:**

>RG201418 representing NM\_031443  
 Red=Cloning site Green=Tags(s)

MEEEGKKGKPGIVSPFKRVFLKGEKSRDKKAHEKVTERPLHTVVLSLPERVEPDRLLSDYIEKEVKYL  
 GQLTSIPGYLNPSSRTEILHFIDNAKRAHQLPGHLTQEHDVLSL SAYNVKLAWRDGEDIILRVPIHDIA  
 AVSYVRDAAHLVVLKTAQDPGISPSQSLCAESSRGLSAGLSSEAVGPVEACCLVILAAESKVAEEELC  
 CLLGQVFQVYTESTIDFLDRAIFDGASTPTHLSLHSDSSTKVDIKETYEVEASTFCFPESVDVGGAS  
 PHSKTISELSASATELLQDYMLTLRTKLSSEIQQFAALLHEYRNGASIEHFCINLRQLYGDSTRKFL  
 LGLRPFIPKDSQHFENFLETIGVKDGRGIIITDSFGRHRRALSTTSSTTNGNRATGSSDDRSAPSEGDE  
 WDRMISDISSDIEALGCSMDQDSA

**TRTRPLE** – GFP Tag – V

**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**


**ACCN:** NM\_031443

**ORF Size:** 1332 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\\_031443.4](#)

**RefSeq Size:** 1904 bp

**RefSeq ORF:** 1335 bp

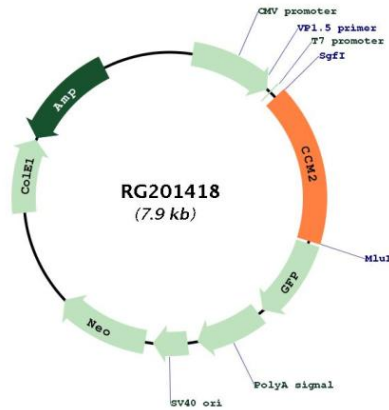
**Locus ID:** 83605

**UniProt ID:** [Q9BSQ5](#)

**Cytogenetics:** 7p13

**Gene Summary:**

This gene encodes a scaffold protein that functions in the stress-activated p38 Mitogen-activated protein kinase (MAPK) signaling cascade. The protein interacts with SMAD specific E3 ubiquitin protein ligase 1 (also known as SMURF1) via a phosphotyrosine binding domain to promote RhoA degradation. The protein is required for normal cytoskeletal structure, cell-cell interactions, and lumen formation in endothelial cells. Mutations in this gene result in cerebral cavernous malformations. Multiple transcript variants encoding different isoforms have been found for this gene.[provided by RefSeq, Nov 2009]

**Product images:**

Circular map for RG201418