

## Product datasheet for **RC209689**

### **C19orf28 (MFSD12) (NM\_174983) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	C19orf28 (MFSD12) (NM_174983) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	C19orf28
Synonyms:	C19orf28; PP3501
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>RC209689 ORF sequence  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**GCGATCGCC**

ATGGGCCCGGACCCCCAGCGGCCGGAGCGGCCCGCTCCCGCGGCCGCTGTCCCTGGTGGCGCGGCTGA  
 GCTACGCCGTGGGCCACTTCTCAACGACTGTGCGCGTCCATGTGGTTACCTACCTGCTGCTCTACCT  
 GCACTCGGTGCGCGCTACAGCTCCCGCGGCCGGGGCTGCTGCTGCTGCTGGCCAGGTGGCCGACGGG  
 CTGTGCACACCGCTCGTGGGCTACGAGGCCGACCGCGCCGACAGTGTGCGCCCGCTACGGCCCGCGCA  
 AGGCTGGCACCTGGTCGGCACCGTCTGCGTCTGCTGTCTTCCCTTCATCTCAGCCCTGCCTGGG  
 CTGTGGGGCGGCCAGCCCGAGTGGGCTGCCCTCTACTACGGCCGTTTCATCGTGATCTTCCAGTTT  
 GGCTGGGCTCCACACAGATCTCCACCTCAGCCTCATCCGGAGCTCGTACCAACGACCATGAGAAGG  
 TGGAGCTACGGCACTCAGGTATGCGTTCACCGTGGTGGCAACATCACCGTCTACGGCGCCGCTGGCT  
 CCTGCTGCACCTGCAGGGCTCGTCGCGGTGGAGCCACCAAGACATCAGCATCAGCGACCAGCTGGGG  
 GCCAGGACGTGCCCGTGTCCGGAACCTGTCCCTGCTGGTGGTGGGTGTCGCGCCGCTGTTCTCACTGC  
 TATTCCACCTGGGCACCCGGGAGAGCGCCGGCCGATGCGGAGGAGCCAGGCGAGCACACCCCCCTGTT  
 GGCCCTGCCACGGCCAGCCCTGCTGCTCTGGAAGCACTGGCTCCGGGAGCCGGCTTTTACCAGGTG  
 GGCATACTGTACATGACCACCAGGCTCATCGTGAACCTGTCCAGACCTACATGGCCATGTACCTCACCT  
 ACTCGTCCACCTGCCAAGAAGTTCATCGCGACCATCCCTGGTGATGTACCTCAGCGGCTTCTGTGTC  
 CTCCTTCTCATGAAGCCATCAACAAGTGCATTGGGAGGAACATGACCTACTTCTCAGGCTCCTGGTG  
 ATCCTGGCCTTTGCCGCTGGGTGGCGCTGGCGGAGGGACTGGGTGTGGCCGTGTACGACGCGGCTGTGC  
 TGCTGGGTGCTGGCTGTGCCACCATCCTCGTCACTCGCTGGCCATGACGGCCGACCTCATCGTCCCCA  
 CACGAACAGCGGAGCGTTCGTGTACGGCTCCATGAGCTTCTTGGATAAGGTGGCCAATGGGCTGGCAGTC  
 ATGGCCATCCAGAGCCTGCACCTTGCCTCAGAGCTCTGCTGCAGGGCCTGCGTGAGCCTTACCCT  
 GGGCGATGGTGGCTGTGACGGCGCGGCTGGGCGTGGCCGCTGCCCTGTGTCTGTAGCCTCCTGTGTG  
 GCCACCCGCTGCGACGCTGGGACCGTATGCCCGGCC

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC209689 protein sequence  
 Red=Cloning site Green=Tags(s)

MGPGPPAAGAAPSPRPLSLVARLSYAVGHFLNDLCASMWFTYLLLYLHSVRAVSSRGAGLLLLLGGVADG  
 LCTPLVGYEADRAASCCARYGPRKAWHLVGTVCVLLSFPFIFSPCLGCGAATPEWAALLYGPFFIVIFQF  
 GWASTQISHLSLIPELVTNDHEKVELTALRYAFTVVANITVYGAWLLHLQGSSRVEPTQDISISDQLG  
 GQDVPVFRNLSLLVVGAVFSLLFHLGTRRRRPHAEPEHTPLLAPATAQPLLLWKHWLREPAFYQV  
 GILYMTTRLIVNLSQTYMAMYLTYSLHLPKFIATIPLVMYLSGFLSSFLMKPINKCIGRNMTYFSGLLV  
 ILAFAAWVALAEGLGVAYYAAVLLGAGCATILVTSLAMTADLIGPHTNSGAFVYGSMSFLDKVANGLAV  
 MAIQSLHPCSELCCRACVSLYHWAMVAVTGGVGVAAALCLCSLLLWPTRLRRWDRDARP

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mk6709\\_f04.zip](https://cdn.origene.com/chromatograms/mk6709_f04.zip)

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**

**ACCN:** NM\_174983

**ORF Size:** 1440 bp

**OTI Disclaimer:** Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at [custsupport@origene.com](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

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](#)

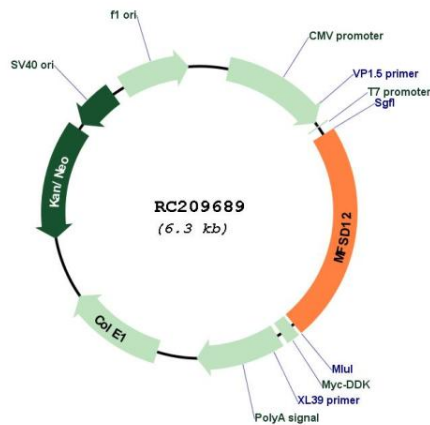
**OTI Annotation:** This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

**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.

<b>Note:</b>	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
<b>RefSeq:</b>	<u>NM_174983.5</u>
<b>RefSeq Size:</b>	2149 bp
<b>RefSeq ORF:</b>	1443 bp
<b>Locus ID:</b>	126321
<b>UniProt ID:</b>	<u>Q6NUT3</u>
<b>Cytogenetics:</b>	19p13.3
<b>Protein Families:</b>	Transmembrane
<b>MW:</b>	52 kDa
<b>Gene Summary:</b>	Transporter that mediates the import of cysteine into melanosomes, thereby regulating skin pigmentation (PubMed:33208952). In melanosomes, cysteine import is required both for normal levels of cystine, the oxidized dimer of cysteine, and provide cysteine for the production of the cysteinyl dopas used in pheomelanin synthesis, thereby regulating skin pigmentation (PubMed:33208952). Also catalyzes import of cysteine into lysosomes in non-pigmented cells (PubMed:33208952).[UniProtKB/Swiss-Prot Function]

### Product images:



Circular map for RC209689