

Product datasheet for **RG212962**

C19orf28 (MFSD12) (NM_021731) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	C19orf28 (MFSD12) (NM_021731) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	C19orf28
Synonyms:	C19orf28; PP3501
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG212962 representing NM_021731
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGGCCCGGACCCCCAGCGGCCGGAGCGGCCCGCTCCCGCGGCCGCTGTCCCTGGTGGCGCGGCTGA
 GCTACGCCGTGGGCCACTTCTCAACGACTGTGCGCGTCCATGTGGTTACCTACTGCTGCTCTACCT
 GCACTCGGTGCGCGCTACAGCTCCCGCGGCCGGGGCTGCTGCTGCTGCTGGCCAGGTGGCCGACGGG
 CTGTGCACACCGCTCGTGGGCTACGAGGCCGACCGCGCCGACAGTGTGCGCCCGCTACGGCCCGCGCA
 AGGCTGGCACCTGGTCGGCACCGTCTGCGTCTGCTGTCTTCCCTTCATCTCAGCCCTGCCTGGG
 CTGTGGGGCGGCCAGCCCGAGTGGGCTGCCCTCTACTACGGCCGTTTCATCGTGATCTTCCAGTTT
 GGCTGGGCTCCACACAGATCTCCACCTCAGCCTCATCCGGAGCTCGTACCAACGACCATGAGAAGG
 TGGAGCTCAGGCACTCAGGTATGCGTTCACCGTGGTGGCCAACATCACCGTCTACGGCGCCGCTGGCT
 CCTGCTGCACCTGCAGGGCTCGTCGCGGTGGAGCCACCAAGACATCAGCATCAGCGACCAGCTGGGG
 GGCAGGACGTGCCCGTGTCCGGAACCTGTCCCTGCTGGTGGTGGGTGTGCGCGCCGTGTCTCACTGC
 TATTCCACCTGGGCACCCGGGAGAGCGCCGGCCGATGCGGAGGAGCCAGGCGAGCACACCCCCCTGTT
 GGCCCTGCCACGGCCAGCCCTGCTGCTCTGGAAGCACTGGCTCCGGGAGCCGGCTTTTACCAGGTG
 GGCATACTGTACATGACCACCAGGCTCATCGTGAACCTGTCCAGACCTACATGGCCATGTACCTCACCT
 ACTCGTCCACCTGCCAAGAAGTTCATCGCGACCATCCCTGGTGATGTACCTCAGCGGCTTCTTGTG
 CTCCTTCTCATGAAGCCATCAACAAGTGCATTGGGAGGAACATGACCTACTTCTCAGGCTCCTGGTG
 ATCCTGGCCTTTGCCGCTGGGTGGCGCTGGCGGAGGGACTGGGTGTGGCGGTACGCGAGCGGCTGTGC
 TGCTGGGTGCTGGCTGTGCCACCATCTCGTCACTCGTGGCCATGACGCGCCGACCTCATCGGTCCCCA
 CAGCAACAGCGGAGCGTTCGTGTACGGCTCCATGAGCTTCTTGGATAAGGTGGCCAATGGGCTGGCAGTC
 ATGGCCATCCAGAGCCTGCACCCCTGCCCTCAGAGCTCTGCTGCAGGGCCTGCGTGAGCTTTTACCACT
 GGGCGATGGTGGCTGTGACGGCGCGCTGGGCGTGGCCGCTGCCCTGTGTCTGTAGCCTCCTGTGTG
 GCCGACCCGCTGCGACGCTCTTTTCTTGCCTGGAGAAGAGGGAGGGGAGAGGACAAGGGCCCTGGCTAC
 TCCTGGATTCTACAGTCTTGTCCAGCCTCCAAGACCCACAAGTCCCTTCTCTGGGAAGCCCCCTGG
 CCTGGAGGTGCACCAGGAAGAAGTGGTCTGGGCTGGCACTAAGCCATGGCCAGGGAAGACTGGGGGAC
 CCAC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>RG212962 representing NM_021731
 Red=Cloning site Green=Tags(s)

MGPGPPAAGAAPSPRPLSLVARLSYAVGHFLNDLCASMWFTYLLLYLHVSVRAYSSRGAGLLLLLGGQVADG
 LCTPLVGYEADRAASCCARYGPRKAWHLVGTVCVLLSFPFIFSPCLGCGAATPEWAALLYGPFIVIFQF
 GWASTQISHLSLIPELVTNDHEKVELTALRYAFTVVANITVYGAWLLLLHLQGSSRVEPTQDISISDQLG
 GQDVPVFRNLSLLVVGAVFSLFLHGTERRRRPHAEPEHTPLLAPATAQPLLLWKHWLREPAFYQV
 GILYMTTRLIVNLSQTYMAMYLTYSLHLPKFIATIPLVMYLSGFLSSFLMKPINKCIGRNMTYFSGLLV
 ILAFAAWVALAELGVAVYAAAVLLGAGCATILVTSLAMTADLIGPHTNSGAFVYGSMSFLDKVANGLAV
 MAIQSLHPCPSELCCRACVSFYHWAMVAVTGGVGVAAALCLCSLLLWPTRLRRSFLAWRRGRGEDKGPY
 SWIPTVLVQPPRPTSPFLWEAPLAWRCTRKKWSGAGTKPWPREDWGT

TRTRPLE - GFP Tag - V

Restriction Sites:

Sgfl-MluI

Cloning Scheme:


ACCN: NM_021731

ORF Size: 1614 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_021731.2](#), [NP_068377.2](#)

RefSeq Size: 2284 bp

RefSeq ORF: 1616 bp

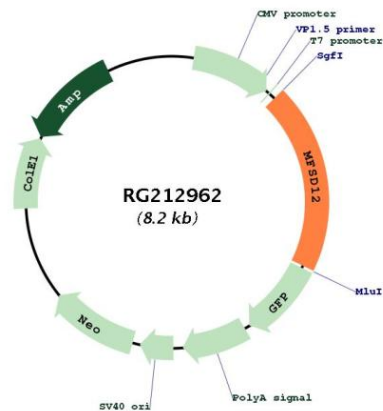
Locus ID: 126321

Cytogenetics: 19p13.3

Protein Families: Transmembrane

Gene Summary: 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 RG212962