

Product datasheet for **SC317797**

C19orf28 (MFSD12) (NM_174983) Human Untagged Clone

Product data:

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



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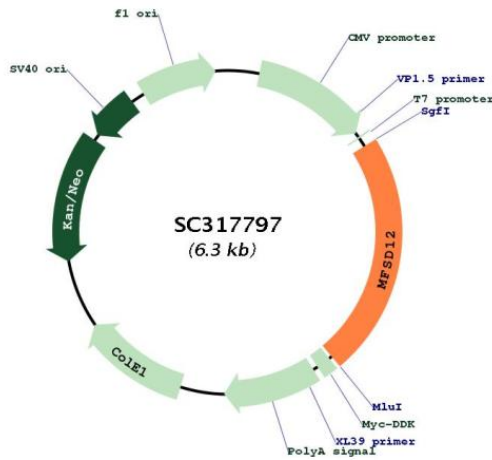
Fully Sequenced ORF: >SC317797 representing NM_174983.
 Blue=Insert sequence Red=Cloning site Green=Tag(s)

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GCTCGTTTAGTGAACCGTCAGAATTTTGTAAATACGACTCACTATAGGGCGGCCGGGAATTCGTGACTG
GATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC
ATGGGCCCGGGACCCCGAGCGGCCGAGCGCGCCGTCCTCCCGCGCCGCTGTCCCTGGTGGCGCGGCTG
AGCTACGCCGTGGCCACTTCCCTAACGACCTGTGCGCGTCCATGTGGTTCACCTACCTGCTGCTCTAC
CTGCACTCGGTGCGCGCCTACAGCTCCCGCGCGCGGGGCTGCTGCTGCTGCTGGCCAGGTGGCCGAC
GGGCTGTGCACACCGCTCGTGGGCTACGAGGCCGACCGCGCCGCGAGCTGCTGCGCCCGCTACGGCCCG
CGCAAGGCCTGGCACCTGGTCGGCACCGTCTGCGTCTGCTGTCTTCCCTTTCATCTTACAGCCCTGC
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CAGTTTGGCTGGGCTCCACACAGATCTCCACCTCAGCCTCATCCGGAGCTCGTACCAACGACCAT
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GCCTGGCTCCTGTGCACCTGCAGGGCTCGTCGCGGGTGGAGCCACCAAGACATCAGCATCAGCGAC
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AGCGGCTTCTTGTCTCTTCTCATGAAGCCATCAACAAGTGCATTGGGAGGAACATGACCTACTTC
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GACCTCATCGGTCCACACGAACAGCGGAGCGTTCGTGTACGGTCCATGAGCTTCTTGATAAAGTG
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ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGAT
TACAAGGATGACGACGATAAGGTTTAAACGGCCGGC
  
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Restriction Sites: SgfI-MluI

Plasmid Map:



ACCN: NM_174983

Insert Size: 1443 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 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 TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.

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_174983.4](#)

RefSeq Size: 2149 bp

RefSeq ORF: 1443 bp

Locus ID: 126321

UniProt ID: [Q6NUT3](#)

Cytogenetics: 19p13.3

Protein Families: Transmembrane

MW: 52.1 kDa

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]

Transcript Variant: This variant (3) represents the longer transcript and encodes the longer isoform (c).