

Product datasheet for SC307230

LASS3 (CERS3) (NM 178842) Human Untagged Clone

Product data:

Product Type: Expression Plasmids

Product Name: LASS3 (CERS3) (NM_178842) Human Untagged Clone

Tag: Tag Free Symbol: CERS3

Synonyms: ARCI9; LASS3

Mammalian Cell Neomycin

Selection:

Vector:pCMV6-Entry (PS100001)E. coli Selection:Kanamycin (25 ug/mL)

Fully Sequenced ORF: >SC307230 representing NM_178842.

Blue=Insert sequence Red=Cloning site Green=Tag(s)

GATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC

ATGTTTTGGACGTTTAAAGAATGGTTCTGGTTGGAAAGATTCTGGCTTCCTCCAACAATAAAGTGGTCA GATCTTGAGGATCACGATGGACTCGTCTTTGTAAAACCTTCTCATTTATACGTGACAATTCCATATGCT TTTCTCTTGCTGATTATCAGACGTGTATTTGAAAAAATTTGTTGCTTCACCTCTAGCAAAATCATTTGGC ATTAAAGAGACAGTTCGAAAGGTTACACCAAATACTGTCTTAGAGAATTTTTTCAAACATTCCACAAGG CAACCATTGCAAACTGATATTTATGGACTGGCAAAGAAGTGTAACTTGACGGAGCGCCAGGTGGAAAGA TGGTTTAGGAGTCGGCGGAATCAAGAGAGGCCTTCCAGGCTGAAGAAATTCCAGGAAGCTTGCTGGAGA TTTGCATTTTACTTAATGATCACTGTTGCTGGAATTGCGTTTCTTTATGATAAACCTTGGCTATATGAC TTATGGGAGGTTTGGAATGGCTATCCCAAACAGCCCCTGCTGCCATCCCAGTACTGGTACTACATTTTA GAAATGAGTTTTTATTGGTCTCTGTTATTTAGACTTGGCTTTGATGTCAAGAGAAAGGATTTTCTAGCT CATATCATCCACCACCTGGCTGCTATTAGTCTGATGAGCTTCTCTTGGTGTGCTAATTATATTCGCAGT GGGACCCTCGTGATGATTGTACACGATGTGGCTGACATTTGGCTGGAGTCTGCTAAGATGTTTTCTTAT GCTGGATGGACGCAGACCTGTAACACCCTGTTTTTCATCTCCCACCATATTTTTCATCAGCCGCCTC TCATACATCTTCCTCAACCTACAGCTCATGATCTTGCAGGTCCTTCACCTTTACTGGGGTTATTACATC TTGAAGATGCTCAACAGATGTATATTCATGAAGAGCATCCAGGATGTGAGGAGTGATGACGAGGATTAT GAAGAGGAAGAGGAAGAAGAAGAAGAGGCTACCAAAGGCAAAGAGATTGTTTAAAGAACGGC CTCAGGGCTGAGAGGCACCTCATTCCCAATGGCCAGCATGGCCATTAG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGAT

TACAAGGATGACGACGATAAGGTTTAAACGGCCGGC

Restriction Sites: Sgfl-Mlul



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Plasmid Map:

ACCN: NM_178842 **Insert Size:** 1152 bp

OTI Disclaimer: Our molecular clone sequence data has been matched to the reference identifier above as a

point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative

RNA splicing form or single nucleotide polymorphism (SNP).

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: <u>NM 178842.4</u>

 RefSeq Size:
 3909 bp

 RefSeq ORF:
 1152 bp

 Locus ID:
 204219

 UniProt ID:
 Q8IU89

 Cytogenetics:
 15q26.3

Protein Families: Transcription Factors, Transmembrane

MW: 46.3 kDa



Gene Summary:

This gene is a member of the ceramide synthase family of genes. The ceramide synthase enzymes regulate sphingolipid synthesis by catalyzing the formation of ceramides from sphingoid base and acyl-coA substrates. This family member is involved in the synthesis of ceramides with ultra-long-chain acyl moieties (ULC-Cers), important to the epidermis in its role in creating a protective barrier from the environment. The protein encoded by this gene has also been implicated in modification of the lipid structures required for spermatogenesis. Mutations in this gene have been associated with male fertility defects, and epidermal defects, including ichthyosis. Alternative splicing results in multiple transcript variants encoding different isoforms. [provided by RefSeq, Aug 2015]

Transcript Variant: This variant (4) differs in the 5' UTR and the 5' coding region and initiates translation at a downstream start codon, compared to variant 1. Variants 2, 3 and 4 encode the same isoform (2), which has a shorter N-terminus, compared to isoform 1. Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.