

## Product datasheet for RC205511

### LASS3 (CERS3) (NM\_178842) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	LASS3 (CERS3) (NM_178842) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	LASS3
Synonyms:	ARCI9; LASS3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC205511 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGGATCGCC**

ATGTTTTGGACGTTTAAAGAATGGTCTGGTTGGAAAGATTCTGGCTTCCCAACAATAAAGTGGTCAG  
ATCTTGAGGATCACGATGGACTCGTCTTTGTAACCTTCTCATTATACGTGACAATCCATATGCTTT  
TCTCTTGCTGATTATCAGGCGTGTATTTGAAAAATTTGTTGCTTACCTTAGCAAATCATTGGCATT  
AAAGAGACAGTTCGAAAGTTACACCAAACTGTCTTAGAGAATTTTTCAAACATCCACAAGGCAAC  
CATTGCAAATGATATTTATGGACTGGCAAAGAAGTGAACCTTGACGGAGCGCCAGGTGGAAAGATGGTT  
TAGGAGTCGGCGGAATCAAGAGAGGCCTCCAGGCTGAAGAAATCCAGGAAGCTTGCTGGAGATTTGCA  
TTTTACTTAATGATCACTGTTGCTGGAATTGCGTTTTCTTATGATAAACCTTGGCTATATGACTTATGGG  
AGGTTTGGAAATGGCTATCCCAAACAGCCCTGCTGCCATCCCAGTACTGGTACTACATTTAGAAATGAG  
TTTTTATTGGTCTCTGTTATTTAGACTTGGCTTGGATGCAAGAGAAAGGATTTCTAGCTCATATCATC  
CACCACCTGGCTGCTATTAGTCTGATGAGCTTCTTGGTGTGCTAATTATTCGCAGTGGGACCTCG  
TGATGATTGTACACGATGGCTGACATTTGGCTGGAGTCTGCTAAGATGTTTTCTATGCTGGATGGAC  
GCAGACCTGTAACACCCTGTTTTTCATCTTCTCCACCATTTTTTCATCAGCCGCTCATTGTTTTCT  
TTCTGGATTTTATTGACGCTGATCTTGCCTATGTATCACCTCGAGCCTTTCTTTTCATACATCTTCC  
TCAACCTACAGCTCATGATCTTGCAGGTCCTTACCTTTACTGGGTTATTACATCTTGAAGATGCTCAA  
CAGATGTATTTATGAAGAGCATCCAGGATGTGAGGAGTGTACGAGGATTATGAAGAGGAAGAGGAA  
GAGGAAGAAGAAGAGGCTACCAAAGGCAAAGAGATGGATTGTTTAAAGAACGGCCTCGGGCTGAGAGGC  
ACCTCATTCCCAATGGCCAGCATGGCCAT

**ACGGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC205511 protein sequence  
Red=Cloning site Green=Tags(s)

MFWTFKEFWLERFWLPPTIKWSDLEDHDGLVFKPSHLYVTIPYAFLLLIIRRVFEKFFVASPLAKSFGI  
 KETVRKVTPNTVLENFFKHSTRQPLQTDIYGLAKKCNLTERQVERWFRSRRNQERPSRLKKFQEACWRFA  
 FYLMITVAGIAFLYDKPWLVDLWEVWNGYPKQPLLP SQYWIYIEMSFWYSLLFRLGFDVKRKDFLAHII  
 HHLAAISLMSFSWCANYIRSGTLVMIIVHDVADIWLES AKMFSYAGWTQTCNTLFFIFSTIFFISR LIVFP  
 FWILYCTLILPMYHLEPFFSYIFLNLQMLQVLHLWGYIILKMLNRCIFMKSIQDVRSDDEDYEEEE  
 EEEEEATKGKEMDCLKNGLGAERHLIPNGQHGH

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6724\\_g02.zip](https://cdn.origene.com/chromatograms/mk6724_g02.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_178842

**ORF Size:** 1149 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\\_178842.2](#)

**RefSeq Size:** 3894 bp

**RefSeq ORF:** 1152 bp

**Locus ID:** 204219

**UniProt ID:** [Q8IU89](#)

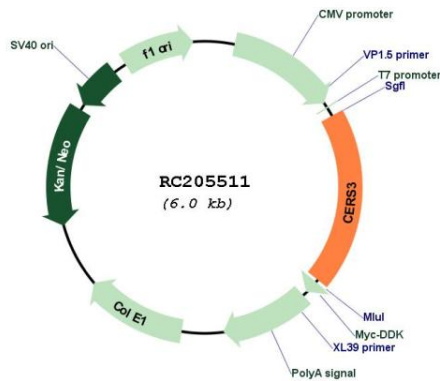
**Cytogenetics:** 15q26.3

**Protein Families:** Transcription Factors, Transmembrane

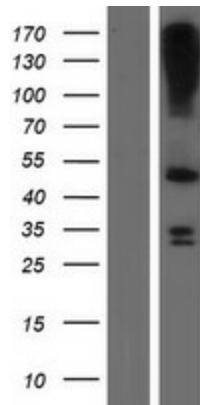
**MW:** 46.2 kDa

**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]

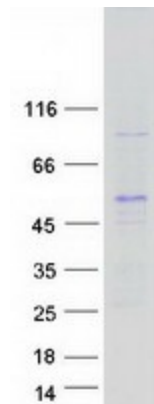
Product images:



Circular map for RC205511



Western blot validation of overexpression lysate (Cat# [LY405858]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC205511 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified CERS3 protein (Cat# [TP305511]). The protein was produced from HEK293T cells transfected with CERS3 cDNA clone (Cat# RC205511) using MegaTran 2.0 (Cat# [TT210002]).