

Product datasheet for **RC214463**

LSS (NM_001001438) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	LSS (NM_001001438) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	LSS
Synonyms:	APMR4; CTRCT44; HYPT14; OSC
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

ORF Nucleotide Sequence:

>RC214463 representing NM_001001438
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGACGGAGGGCACGTGTCTGCGCGCCGAGGGGGCCCCTACAAGACCGAGCCCGCCACCGACTCGGCC
 GCTGGCGACTCAACTGCGAGAGGGGCCGCGACAGGTGGACCTACCTGACAGGACGAGCGCCGCGCGCA
 GCAGACCGGCTGGAAGCCTACGCCCTGGGGCTGGACACCAAGAATTACTTTAAGGACTTGCCCAAAGCC
 CACACCGCCTTTGAGGGGGCTCTGAACGGGATGACATTTTACGTGGGGCTGCAGGCTGAGGATGGGCACT
 GGACGGGTGATTATGGTGGCCACTTTTCTCCTGCCAGGCCCTCCTGATCACTTGCCACGTGGCACGCAT
 CCCTCTGCCAGCCGATACAGAGAAGAGATTGTGCGGTACCTGCGGTGAGTGCAGCTCCCTGACGGTGGC
 TGGGGCTGCACATTGAGGATAAGTCCACCGTGTGGGACTGCGCTCAACTATGTGTCTCTCAGAATTC
 TGGGTGTTGGGCCTGACGATCCTGACCTGGTACGAGCCCGGAACATTCTCACAAGAAAGGTGGTGTGT
 GGCCATCCCTCCTGGGGAAAGTTCTGGCTGGCTGCTGAATGTTTACAGCTGGGAAGGCCCTCAATACC
 CTGTTCCAGAGATGTGGCTGTTTCTGACTGGGCACCGGCACACCCCTCCACACTCTGGTGCCACTGCC
 GGCAGGTGACTGCCCCATGAGCTACTGTACGCCGTTTCGGCTGAGTGCCGCGGAAGACCCGCTGGTCCA
 GAGCCTCCGCCAGGAGCTCTATGTGGAGGACTTCGCCAGCATTGACTGGCTGGCGCAGAGGAACAACGTG
 GCCCCGACGAGCTGTACACGCCGCACAGCTGGCTGCTCCGCGTGGTATATGCGCTCCTCAACCTGTATG
 AGCACCACCACAGTGCCACCTGCGGCAGCGGGCCGTGCAGAAGCTGTATGAACACATTGTGGCCGACGA
 CCGATTCACCAAGAGCATCAGCATCGGCCCGATCTCGAAAACCAACATGCTTGTGCGCTGGTATGTG
 GACGGGGCCCGCTCCACTGCCTCCAGGAGCATGTCTCCAGAATCCCGACTATCTGGATGGGCTGTGCT
 ACGGCATGAAAATGCAGGGCACCAACGGCTCACAGATCTGGACACCGCATTCCGCACTCCAGGCTGGCT
 TGAGGCGGGCGGCCACACAGGCCCGAGTTTTCTGCTGCTGCAGAAGGCTCATGAGTTCTGAGGCTC
 TCACAGGTCCAGATAACCCTCCGACTACCAGAAGTACTACCGCAGATGCGCAAGGGTGGCTTCTCCT
 TCAGTACGCTGGACTGCGGCTGGATCGTTTCTGACTGCACGGCTGAGGCCTTGAAGGCTGTGCTGCTCCT
 GCAGGAGAAGTGTCCCCATGTCACCGAGCACATCCCCAGAGAACGGCTCTGCGATGCTGTGGCTGTGCTG
 CTGAACATGAGAAATCCAGATGGAGGTTTCGCCACCTATGAGACCAAGCGTGGGGGCACTTGTGGAGC
 TGCTGAACCCCTCGGAGTCTTCGGGGACATCATGATTGACTACACCTATGTGGAGTGCACCTCAGCCGT
 GATGCAGGCGCTTAAGTATTTCCACAAGCGTTTCCCGGAGCACAGGGCAGCGGAGATCCGGGAGACCCTC
 ACGCAGGGCTTAGAGTTCTGTCGGCGGCAGCAGAGGGCCGATGGCTCCTGGGAAGGCTCCTGGGGAGTTT
 GCTTACCTACCGCACCTGGTTTGGCCTGGAGGCCTTCGCTGTATGGGGCAGACCTACCGAGATGGGAC
 TGCTGTGCAGAGGTCTCCCGGGCTGTGACTTCTGCTGTCCCGGCAGATGGCAGACGGAGGCTGGGGG
 GAGGACTTTGAGTCTGCGAGGAGCGGCTTATTTGCAGAGTGGCCAGTCCCAGATCCATAACACATGCT
 GGGCCATGATGGGGCTGATGGCCGTTCCGCATCCTGACATCGAGGCCAGGAGAGAGGAGTCCGGTGTCT
 ACTTGAGAAACAGCTCCCAATGGCGACTGGCCGAGGAAAACATTGCTGGGGTCTTCAACAAGTCTGT
 GCCATCTCTACACGAGCTACAGGAACATCTTCCCATCTGGGCCCTCGGCCGCTTCTCCAGCTGTACC
 CTGAGAGAGCCCTTGTGGCCACCC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC214463 representing NM_001001438
Red=Cloning site Green=Tags(s)

MTEGTCLRRRGGPYKTEPATDLGRWRLNCERGRQTWYTLQDERAGREQTGLEAYALGLDTKNYFKDLPKA
 HTAFEGALNGMTFYVGLQAEDGHWTGDYGGPLFLLPGLLITCHVARIPLPAGYREEIVRYLRSVQLPDGG
 WGLHIEDKSTVFGTALNYVSLRILGVGPDDDLVRARNILHKKGGAVAIPSWGKFWLAVLNVYSWEGLNT
 LFPPEMWLFPDWAPHPSTLWCHCRQVYLPMSYCYAVRLSAAEDPLVQSLRQELYVEDFASIDWLAQRNNV
 APDELYTPHSWLLRVVYALLNLVYEHHSAPHLRQRAVQKLYEHIVADDRFTKISISIGPISKINMLVRWYV
 DGPASTAFQEHVSRIPDYLMWGLDGMKMQGTNGSQIWDTAFAIQALLEAGGHRPEFSSCLQKAHEFLRL
 SQVPDNPDPYQKYRQMRKGGFSFSTLDCGWIVSDCTAEALKAVLLLQEKCPHVTEHIPRERLCDAVAVL
 LNMNRNPDGGFATYETKRGHLELLNPSEVFGDIMIDYTYVECTSVMQALKYFHKRFPEHRAAEIRETL
 TQGLEFCRRQQRADGSWEGSWGVCFTYGTWFGLEAFACMGQTYRDGTACAESRACDFLLSRQMDGGWG
 EDFESCEERRYLSAQSQIHNTCWAMMGLMAVRHPDIEAQERGVRCLLEKQLPNGDWPQENIAGVFNKSC
 AISYTSYRNIFPIWALGRFSQLYPERALAGHP

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk8030_h05.zip

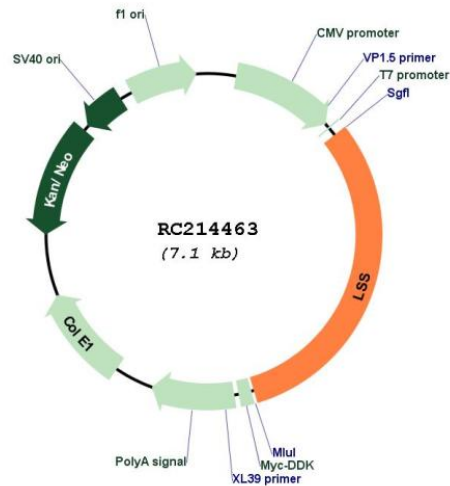
Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

Plasmid Map:


ACCN: NM_001001438

ORF Size: 2196 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_001001438.2](#), [NP_001001438.1](#)

RefSeq Size: 2658 bp

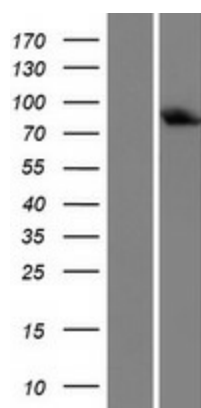
RefSeq ORF: 2199 bp

Locus ID: 4047

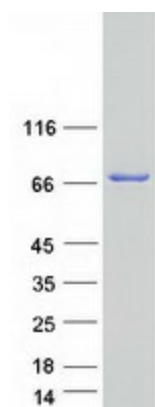
UniProt ID: [P48449](#)

Cytogenetics:	21q22.3
Protein Families:	Druggable Genome
Protein Pathways:	Metabolic pathways, Steroid biosynthesis
MW:	83.1 kDa
Gene Summary:	The protein encoded by this gene catalyzes the conversion of (S)-2,3 oxidosqualene to lanosterol. The encoded protein is a member of the terpene cyclase/mutase family and catalyzes the first step in the biosynthesis of cholesterol, steroid hormones, and vitamin D. Alternative splicing results in multiple transcript variants encoding different isoforms. [provided by RefSeq, Feb 2009]

Product images:



Western blot validation of overexpression lysate (Cat# [LY424356]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC214463 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified LSS protein (Cat# [TP314463]). The protein was produced from HEK293T cells transfected with LSS cDNA clone (Cat# RC214463) using MegaTran 2.0 (Cat# [TT210002]).