

Product datasheet for MR218374

Scap (NM_001103162) Mouse Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Scap (NM_001103162) Mouse Tagged ORF Clone
Tag: Myc-DDK
Symbol: Scap
Synonyms: 9530044G19; mKIAA0199
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
Cell Selection: Neomycin
ORF Nucleotide Sequence: >MR218374 representing NM_001103162
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGACCCTGACTGAAAGGCTTCGTGAGAAGATATCTCAGGCCTTCTACAACCATGGGCTGCTCTGCGCAT
 CCTATCCAATCCCATCATCCTCTTACAGGACTCTGCATCTTAGCCTGCTGCTACCCGCTGCTGAAGCT
 CCCCTTGCTGGAACGGGACCTGTGGAATTCTCCACGCCTGTGAAGGGTTACTCGCCCCGCTGCGGAC
 TCTGACCACAAACAAGGAGAGCCAGCAGCAGCCAGAGTGGTATGTGGGTGCCCCGCTGGCGTACATCC
 AACAGATATTTGTGAAGTCATCGGTGTCTCCCTGGCACAGAAATCTTCTGGCAGTCGATGTGTTCCGGTC
 ACCTCTGTCCCGAGCATTCCAACCTGGTGGAAAGAGATCCGGAACCATGTGCTGAGAGACAGCTCAGGGACC
 AAGAGCCTGGAGGAGTTTGCCTGCAGGTGACAGACCTGCTGCCAGGCCTCAGGAAACTCCGGAGCCTAC
 TTCCCGAACATGGCTGCCTGCTGCTGTCCCTGGGAACCTCTGGCAGAATGATTGGGAGAGATCCATGC
 CGACCCTGACATCATTGGGACCATCCATCAACATGAGCCAAAACCTCTACAGACATCAGCCACACTCAA
 GACTTGCTGTTTGGTGTTCCTGGGAAGTACAGTGGGTGAGCCTCTACACAAGGAAAAGGATGGTCTCCT
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 GCTGCACCCAGCCCAACTGCAGCCTCCGAGCAGAGAACCTGGTCCACGTCCACTTCAAAGAGGAGATT
 GGCATTGCTGAGCTCATCCCGCTCGTGACCACCTACATCATCCTGTTTGCCTACATCTACTTCTCCACAC
 GCAAGATCGACATGGTCAAGTCCAAGTGGGGCCTCGCCCTGGCAGCCGTGGTCACAGTACTTAGCTCACT
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 TACCTGGTGGTCGTTATTGGGCTAGAGAACGTGTTGGTGTCTACCAAGTCAGTGGTATCAACTCCAGTGG
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 GACCGAGCTGGGCATCATCCTCATTGGCTACTTACCCTCGTGCCTGCTATCCAGGAGTTCTGCCTTTT
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 TTCGCCGATGGAGCTAGCAGACCTAAACAAGCGGCTGCCCCCTGAATCCTGCCTGCCCTCAGCCAAGCC
 CGTGGGGAGGCCAGCAGATATGAGAGACAGCAGGCTGTACGGCCATCCACGCCACACCATCACATTG
 CAACCATCTTCTCCGAAACCTGCGGCTTCCAAAAGGCTGCGTGTCTACTTCTGCCCCGCACTC



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GCCTGGCCAGCGCCTCATCATGGCTGGTACCGTTGTCTGGATTGGCATCCTGGTATACACCGACCCGGC
AGGGCTGCGCACCTACCTTGCTGCCAGGTGACAGAGCAGAGCCCACTGGGTGAGGGTTCCTGGGCCCC
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ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >MR218374 representing NM_001103162
 Red=Cloning site Green=Tags(s)

MTLTERLRKISQAFYNHGLLCASYPIPIILFTGLCILACCYPLLKPLPGTGPVEFSTPVKGYSPPPAD
 SDHKQGEPEQPEWYVYVAPVAYIQQIFVKSSVSPWHRNLLAVDVFRSPLSRAFQLVEEIRNHVLRDSSGT
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 DLLFGVPGKYSVSLYTRKRMVSYTITLVFQRYHAKFLSSLRARLMLLHPSNCSLRAENLVHVHFKEEI
 GIAELIPLVTYYIILFAIYFSTRKIDMVKSKWGLALAAVVTVLSSLLMSVGLCTLFGLTPTLNGGEIFP
 YLVVVIGLENVLVLTksVVSTPVDLEVKLRIAQGLSSESWSIMKNAATELGIIIGYFTLVPAIQEFCLF
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 QPSSFRNLRPKRLRVIYFLARTRLAQRLIMAGTVVWIGILVYTDPAGLRXYLAAQVTEQSPLGEGSLGP
 MPVPSGVLPAHPDPAFIFPPDAPKLPENQTLPGELPEHAGPAEGVHDSRAPEVTWGPEDDELWRKLSF
 RHWPTLFNYNITLAKRYISLLPVPVTLHLNPREALEGRHPQDGRSAWAPQEPLPAGLWESGPKGPGGT
 QTHGDITLYKVAALGLAAGIVLVLLLLCLYRVLCPRNYGQPGGGPGRRRRGELPCDDYGYAPPETEIVPL
 VLRGHLMDIECLASDGMLLVSCCLAGQVCYWDAAQTGDCLTRIPRPGPRRDSGGGAFETQENWERLSDGG
 KASPEEPGDSPLRRRPPSPPLFGDQPDLTCLIDTNF SVQLPPEPTQPEPRHRVGCGRSRDSGYDFS
 RLVQRYVQEGLAAMRMPALRPPSPGPPLPQASQEEGTAPEKGSPLAWTPSTAGSIWSLELQGNLIVVG
 RSSGRLEVWDAIEGVLCCSNEEISSGITALVFLDRRIVAARLNGSLDFFSLEHTHTSPLQFRGTPGRGS
 SPSSSVYSSNTVTCHRTHVPCAHQKPITALRAAAGRLVTGSQDHLRVFRLDDSCCLFTLKGHSGAIT
 AVYIDQTMVLAASGGQDAICLWDVLTGSRVSTFAHRGDVTSLTCTASCVISSSGLDDFISIWDRSTGIKL
 YSIQQDLGCGASLGVISDNLLVTGGQCVSFDLNYGDLLQTVYLGKNSEAQPARQILVLDNAAIVCNFG
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TRTRPLEQKLISEEDLAANDILDYKDDDDKV

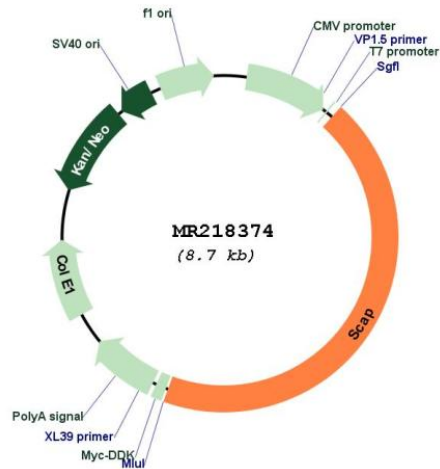
Restriction Sites:

Sgfl-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_001103162

ORF Size: 3828 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_001103162.2](#)

RefSeq Size: 4154 bp

RefSeq ORF: 3831 bp

Locus ID: 235623

UniProt ID: [Q6GQT6](#)

Cytogenetics: 9 59.91 cM

MW: 140.1 kDa

Gene Summary: Escort protein required for cholesterol as well as lipid homeostasis. Regulates export of the SCAP/SREBF complex from the ER upon low cholesterol. Formation of a ternary complex with INSIG at high sterol concentrations leads to masking of an ER-export signal in SCAP and retention of the complex in the ER. Low sterol concentrations trigger release of INSIG, a conformational change in the SSC domain of SCAP, unmasking of the ER export signal, recruitment into COPII-coated vesicles, transport to the Golgi complex, proteolytic cleavage of SREBF in the Golgi, release of the transcription factor fragment of SREBF from the membrane, its import into the nucleus and up-regulation of LDLR, INSIG1 and the mevalonate pathway. [UniProtKB/Swiss-Prot Function]