

Product datasheet for **MG218374**

Scap (NM_001103162) Mouse Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Scap (NM_001103162) Mouse Tagged ORF Clone
Tag: TurboGFP
Symbol: Scap
Synonyms: 9530044G19; mKIAA0199
Mammalian Cell Selection: Neomycin
Vector: pCMV6-AC-GFP (PS100010)
E. coli Selection: Ampicillin (100 ug/mL)
ORF Nucleotide Sequence: >MG218374 representing NM_001103162
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGACCCTGACTGAAAGGCTTCGTGAGAAGATATCTCAGGCCTTCTACAACCATGGGCTGCTCTGCGCAT
 CCTATCCAATCCCATCATCCTCTTACAGGACTCTGCATCTTAGCCTGCTGCTACCCGCTGCTGAAGCT
 CCCCTTGCTGGAACGGGACCTGTGGAATTCTCCACGCCTGTGAAGGGTACTCGCCCCGCTGCGGAC
 TCTGACCACAAACAAGGAGAGCCAGCGAGCAGCCAGAGTGGTATGTGGGTGCCCGTGGCGTACATCC
 AACAGATATTTGTGAAGTCATCGGTGTCTCCCTGGCACAGAAATCTTCTGGCAGTCGATGTGTTCCGGTC
 ACCTCTGTCCCGAGCATTCCAACCTGGTGAAGAGATCCGGAACCATGTGCTGAGAGACAGCTCAGGGACC
 AAGAGCCTGGAGGAGTTTGCCTGCAGGTGACAGACCTGCTGCCAGGCCTCAGGAACTCCGGAGCCTAC
 TTCCCGAACATGGCTGCCTGCTGCTGCCCTGGGAATCTTGGCAGAATGATTGGGAGAGATCCATGC
 CGACCCTGACATCATTGGGACCATCCAACATGAGCCAAAACCTACAGACATCAGCCACACTCAA
 GACTTGCTGTTTGGTGTCTCGGAAAGTACAGTGGGTGAGCCTTACACAAGGAAAAGGATGGTCTCT
 ACACCATACCCTGGTCTTCCAGCGCTACCATGCCAAGTTTCTGAGCAGCCTACGTGCCCGGCTCATGCT
 GCTGCACCCAGCCCCAAGTGCAGCCTCCGAGCAGAGAACCTGGTCCACGTCCACTTCAAAGAGGAGATT
 GGCATTGCTGAGCTCATCCGCTCGTGACCACCTACATCATCTGTTTGCCTACATCTACTTCTCCACAC
 GCAAGATCGACATGGTCAAGTCCAAGTGGGGCCTCGCCCTGGCAGCCGTGGTACAGTACTTAGCTCACT
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 TACCTGGTGGTCGTTATTGGGCTAGAGAAGCTGTTGGTGTCCACCAAGTCAAGTGGTATCAACTCCAGTGG
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 GACCGAGCTGGGCATCATCCTATTGGCTACTTACCCTCGTGCCTGCTATCCAGGAGTTCTGCCTCTT
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 TTCGCCGATGGAGCTAGCAGACCTAAACAAGCGGCTGCCCTGAATCCTGCCTGCCCTCAGCCAAGCC
 CGTGGGAGGCCAGCAGATATGAGAGACAGCAGGCTGTACGGCCATCCAGCCACACACCATCACATTG



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CAACCATCTTCTCCGAAACCTGCGGCTTCCAAAAGGCTGCGTGTCATCTACTTCTGGCCCGCACTC
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GAACAGTGAAGCCAGCCTGCCGGCAGATTTTGGTGTGGACAATGCTGCCATTGTCTGCAACTTTGGC
AGTGAGCTCAGCCTAGTGTATGTGCCCTCTGTGCTGGAGAACTGGAC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTAA

Protein Sequence: >MG218374 representing NM_001103162
 Red=Cloning site Green=Tags(s)

MTLTERLRKISQAFYNHGLLCASYPIPIILFTGLCILACCYPLLKLPPLPGTGPVEFSTPVKGYSPPPAD
 SDHKQGEPEQPEWYVYVAPVAYIQQIFVKSSVSPWHRNLLAVDVFRSPLSRAFQLVEEIRNHVLRDSSGT
 KSLEEVCLQVTDLLPGLRKLRSLLPEHGCLLLSPGNFWQNDWERFHADPDIIGTIHQHEPKTLQTSATLK
 DLLFGVPGKYSGVSLYTRKRMVSYTITLVFQRYHAKFLSSLRARLMLLHPSPNCSLRAENLVVHFKEEI
 GIAELIPLVTYYIILFAYIYFSTRKIDMVKSKWGLALAAVVTVLSSLLMSVGLCTLFGLTPTLNGGEIFP
 YLVVVIGLENVLVLTksvVSTPVDLEVKLRIAQGLSSESWSIMKNAATELGIIIGYFTLVPAIQEFCLF
 AVVGLVSDFFLQMLFFTTVLSDIRRMELADLNKRLPPESCLPSAKPVGRPARYERQQAVRPSTPHTITL
 QPSSFRNLRPKRLRVYFLARTRLAQRLIMAGTVVWIGILVYTDPAGLRXYLAAQVTEQSPLGEGSLGP
 MPVPSGVLPAHPDPAFISIFPPDAPKLPENQTLPGELPEHAGPAEGVHDSRAPEVTWGPEDDELWRKLSF
 RHWPFLFNYYNITLAKRYISLLPVIPVTLHLNPREALEGRHPQDGRSAWAPQEPLPAGLWESGPKGPGGT
 QTHGDITLYKVAALGLAAGIVLVLLLLCLYRVLCPRNYGQPGGGPGRRRRGELPCDDYGYAPPETEIVPL
 VLRGHLMDIECLASDGMLLVSCCLAGQVCYWDQAQTGDCLTRIPRPGPRRDSGGGAFETQENWERLSDGG
 KASPEEPGDSPLRRRPPPPSLFGDQPDLTCLIDTNF SVQLPPEPTQPEPRHRVGCGRSRDSGYDFS
 RLVQRVYQEEGLAAMRMPALRPPSPGPPLPQASQEEGTAPEKGSPLAWTPSTAGSIWSLELQGNLIVVG
 RSSGRLEWDAIEGVLCCSNEEISSGITALVFLDRRIVAARLNGSLDFFSLEHTSLSPQFRGTPGRGS
 SPSSSVYSSNVTCHRTHVPCAHQKPIALRAAAGRLVTGSQDHLRVFRLDSDCCLFTLKGHSGAIT
 AVYIDQTMVLASGGQDGAICLWDVLTGSRVSTFAHRGDVTSLTCTASCVISSGLDDFISIWDRSTGIKL
 YSIQQDLGCGASLGVISDNLVTGGQGCVSFWDLNYGDLLQTVYLGKNSEAPARQILVLDNAAIVCNFG
 SELSLVYVPSVLEKLD

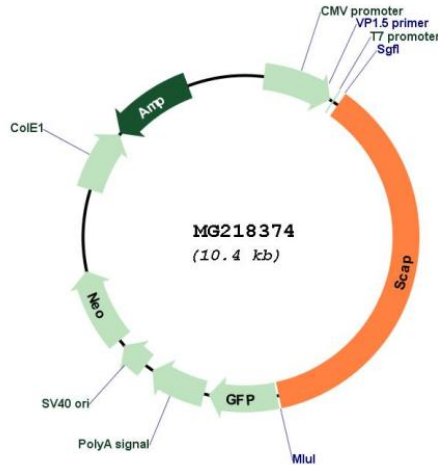
TRTRPLE - GFP Tag - V

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

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]