

Product datasheet for **RN207434**

Scap (NM_001100966) Rat Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Scap (NM_001100966) Rat Untagged Clone
Tag:	Tag Free
Symbol:	Scap
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin
Fully Sequenced ORF:	>RN207434 representing NM_001100966 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGACCCTGACTGAAAGGCTTCGTGAGAAGATATCTCAGGCGTTCTACAACCATGGGCTGCTCTGCGCAT
CCTACCCCATCCATCATCCTCTTACAGGACTCTGCATCCTAGCCTGCTGCTACCCGCTGCTGAAGCT
TCCCTTGCTGGAACGGACCCCGTGAATTCTCCACGCCTGTGAAGGGTTACTCGCCCCGCTGCGGAC
TCTGACCACAAACAAGGAGAGCCAGTGAGCAGCCAGAGTGGTATGTGGGTGCCCCCGTGGCATAACATCC
AGCAGATATTCGTGAAGTCATCAGTGTCTCCCTGGCACAGAAACCTTCTGGCAGTAGATGTTCGGTTC
ACCTCTGTCCCGAGCATTCCAAGTGGTGAAGAGATCCGGAACCATGTGCTGAGAGACAGCTCAGGGACC
AAGAGCCTGGAGGAAGTTTGCCTGCAGGTGACAGACCTGCTGCCAGGCCTCAGGAAACTCCGGAGCCTAC
TTCCCGAACATGGCTGCCTGCTGCTGTACCTGGGAACCTTCTGGCAGAATGACTGGGAAAGATTCCATGC
TGACCCTGACATCATTGGAACCATCCATCAGCATGAGCCTAAAACCTACAGACATCAGCCACACTCAA
GACTTGCTGTTCCGGTGTTCCTGGGAAGTACAGTGGGTGACGCTCTACACGAGGAAGAGGATGGTCTCAT
ACACCATACCCCTGGTCTTCCAGCGCTACCATGCCAAGTTTCTGAGCAGCCTCCGTGCCCGCTCATGCT
TCTGCACCCAGCCCAACTGCAGCCTCCGAGCAGAGAACCTGGTGCATGTGCACTTCAAAGAGGAGATT
GGCATTGCCGAGCTCATCCCCCTCGTGACCACCTACATCATCCTGTTTGCCTACATCTACTTCTCCACAC
GCAAGATCGACATGGTCAAGTCCAAGTGGGGCCTCGCCCTGGCAGCCGTGGTACAGTGCTTAGCTCGCT
GCTCATGTCTGTGGGCTCTGCACTCTCTTCGGCTGACGCCCACTCAATGGCGGCGAGATTTCCCA
TATCTGGTGGTGGTTATTGGGCTAGAGAATGTGTTGGTGTCCACCAAGTCAGTGGTATCAACTCCAGTGG
ACCTTGAGGTGAAGCTTCGAATTGCACAAGGCTTAAGCAGTGAGAGCTGGTCCATCATGAAGAACGTAGC
AACTGAAGTGGGCATCATCCTCATTGGCTACTTCAACCTTGTGCCTGCCATCAAAGATTCTGCCTTTT
GCTGTGGTGGGCTGGTGTGACTTCTCCTCCAGATGCTGTTCTTACCACCGTGTGCTCCATCGACA
TTCGCCGATGGAGCTAGCAGACCTGAACAAGCGGCTGCCCTGAGTCCCTGCCTGCCCTCAGCCAAGCC
TGTGGGAGGCCAGCCGATATGAGAGACAGCTAGCTGTACGGCCGTCCACACCACACCATCACATTG
CAACCATCTTCTCCGAAACCTGCGGCTTCCAAAAGGCTGCGTGTCTACTTCTGCGCCGCACTC
GCCTGGCAGCGCCTCATCATGGCTGGTACAGTTGTCTGGATTGGCATCCTGGTATATACAGACCCGGC
AGGGCTGCGCACCTACCTCGCTGCCAGGTGACAGAACAGAGCCCACTGGGTGAGGGTCCCTGGGGCC



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ATGCCTGTGCCTAGTGGAGTGCTGCCTGCCAGCCACCCGACCCTGCCTTCTCCATCTTCCCACCTGATG
 CTCCTAAACTGCCAGAGAACCAGACGTTGCCAGGTGAGCTGCCTGAGCATGCCGTTCCAGCAGAGGGCGT
 CCAGGACAGCCGAGCCCCAGAGGTGACTTGGGGCCCCGAGGATGAGGAGCTGTGGAGGAAATTGCCTTC
 CGCCACTGGCCCCACACTTTCACTACTATAATATCACACTGGCCAAAAGGTACATCAGCCTGCTGCCTG
 TCATCCCTGTCACTACACCTGAATCCACGGGAGGCTCTGGAGGGGCGACACCTCAGGATGGCCGCAC
 TGCCTGGGCCCCACCAGAGCCTTTGCCTGCTGGCCTGTGGGAGACCGGACCTAAGGGGCCAGGTGGAACA
 CAGACCCATGGCGACATTACCTTGTACAAGTGGCTGCACCTGGCCTGGCAGCGGGCATTGTCCTAGTGC
 TGCTGCTGCTCTGCCTCTACCGGTGCTCTGCCGCGAAACTACGGGCAGCCGGGTGGTGGTGCGGGCAG
 GCGGAGGCGCGGAGAGCTGCCTTGCATGACTATGGCTACGCACCGCCTGAGACGGAGATAGTGCCGCTG
 GTGCTGCGAGGGCACCTCATGGACATCGAGTGTCTGGCTAGCGATGGGATGCTCCTGGTGAAGTGTGCC
 TGGCTGGCCAAGTCTGCGTGTGGGATGCACAGACCGGGGACTGCCTCACTCGCATCCCGGCCCTGGGCC
 ACGCCGGGACAGCTGCGGAGGCGGAGCTTTTGAAGCTCAGGAGAAGTGGAAAGACTGTCTGATGGGGG
 AAAGCTAGCCCGAAGAGCCTGGCGACAGCCCTCCGCTGCGACCGCCCTCGAGGGCCTCCACCGCCTT
 CCCTCTTTGGGGACCAGCCAGACCTCACCTGCTTAATCGACACCAACTTCTCAGTGCAGTGCCTCCAG
 GCCACTCAGCCGAGCCTCGGCACCGGGCGGGTGTGGCCGCTTAGAGACTCTGGTTACGACTTCAGC
 CGTCTGGTGCAGCGTGTGTACCAAGAGGAAGGCCTGGCTGCTGTGCACATGTCCGGCCTGCGCCACCCT
 CCCCAGGACCTCCCTGCCCCAGGCCTCTCAAGAAGAGGGGACTGCTCCCGAGAAGGGCTCCCCCTCT
 GGCTGGGCCCCAGCACAGCCGGTTCATCTGGAGCTTAGAGTTGCAAGGCAGTCTCATCGTGGTTGGG
 CGAAGCAGCGCCGGCTGGAGGTGTGGGATGCCATTGAGGGCGTCTCTGCTGCAGCAATGAGGAGATCT
 CCTCAGGCATCACAGCCCTTGTCTTCTTAGACAGGAGGATTGTAGCTGCTCGGCTCAACGGTCCCTCGA
 TTTCTTTTCTTGGAGACCCACACTTCCCTCAGCCCCGTCAGTTCAGAGGGACCCAGGGAGAGGCAGT
 TCTCCTTCTCGCTGTGTACAGCAGCAACACTGTGGCCTGTACCTGACCCACACAGTCCCCTGTG
 CACACCAGAAACCATCACAGCCCTGAGAGCAGCAGCGGGGCGCCTGGTGCAGGGAGCCAAGACCATA
 TCTGAGAGTCTTCCGACTGGAGGATTCGTGTTGCCTCTTTACCCTGCAGGGCCACTCGGGGGCAATCACA
 ACTGTGTACATTGATCAGACCATGGTATTGGCCAGTGGAGGACAAGATGGAGCCATCTGCCTGTGGGATG
 TACTAACAGGCAGCCGGTCCAGCCATACATTTGCTCACCGTGGAGATGTACCTCCCTCACCTGTACCAC
 TTCCTGTGTTATCAGTAGTGGCCTGGATGACTTCAACATCTGGGACCGAAGCACAGGCATCAAGCTG
 TACTCCATTGAGCAGGACCTGGGCTGTGGTGAAGCTTGGGTGTCATCTCTGATAACCTTCTGGTGAACG
 GCGCCAGGGATGTGTCTCCTTTGGGACCTAAACTATGGGGACCTGTTACAGACAGTCTACTTGGGAAA
 GAACAGTGAAGCCAGCCTGCCCGCAGATTTGGTGTGGACAATGCTGCCATTGTCTGCAACTTTGGC
 AGTGAGCTCAGCCTAGTGTATGTGCCCTCTGTGCTGGAGAACTGGACTGA

ACGGTACGGGCGGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites:

SgfI-MluI

ACCN:

NM_001100966

Insert Size:

3831 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).

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_001100966.1](#), [NP_001094436.1](#)

RefSeq Size: 4301 bp

RefSeq ORF: 3831 bp

Locus ID: 301024

UniProt ID: [A2RRU4](#)

Cytogenetics: 8q32

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 (By similarity).[UniProtKB/Swiss-Prot Function]