

Product datasheet for **RG219802**

Sterol carrier protein 2 (SCP2) (NM_002979) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Sterol carrier protein 2 (SCP2) (NM_002979) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Sterol carrier protein 2
Synonyms:	NLTP; NSL-TP; SCOX; SCP-2; SCP-CHI; SCP-X; SCPX
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG219802 representing NM_002979
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGTCCTCTTCCCGTGGGAGCCTGCGACCCTGCGCCGGGTGTTGTTGGTGGGGTTGGCATGACCAAGT
 TTGTGAAGCCTGGAGCTGAGAATCAAGAGACTACCCTGACTTGGCAGAAGAAGCAGGCAAGAAGGCTTT
 AGCTGATGCACAGATCCCTTATTACAGCAGTGGACCAGGCATGTGTTGGCTATGTTTTGGTACTTACC
 TGTGGGCAGAGGGCTATCTATCACAGTTTGGGAATGACTGGAATCCTATAATCAATGTCAACAATAACT
 GTGCTACTGGTTCTACTGCTTTGTTATGGCCCGCAGCTGATTCAGGGTGGTGGCAGAATGTGCTT
 GGCTCTTGGGTTTGAGAAGATGAGTAAGGGAAGCCTTGAATAAAAATTTTCAGATAGAACCATTCCCCT
 GATAAGCATGTTGACCTCTGATCAATAAGTATGGATTGTCTGCTCACCCAGTTGCTCCTCAGATGTTT
 GGTATGCTGGAAAAGAACATATGAAAAATATGGAACAAAAATTGAACACTTTGCAAAAATTGGATGGAA
 AAATCATAAACATTTCAGTTAATAACCCGATTCCAGTCCAAGATGAATACAGTTTAGATGAAGTGATG
 GCATCTAAAGAAGTTTTGATTTTTGACTATCTTACAATGTTGTCCCACTTCAGATGGTCTGCAGCAG
 CAATTTTGGCCAGTGAAGCATTGTACAGAAGTATGGCCTGCAATCCAAAGCTGTGGAAATTTGGCACA
 AGAAATGATGACTGATTTGCCAAGCTCGTTTGAAGAAAAAGCATTATTAATAATGGTTGGCTTTGATATG
 AGTAAAGAAGCTGCAAGAAAATGCTATGAGAAATCTGGCTGACACCAAAATGATATTGACGTAATAGAAC
 TTCACGATTGCTTTTCTACCAACGAACCTTACTTATGAAGCACTGGGACTCTGTCCAGAAGGACAAGG
 TGCAACGCTGGTTGATAGAGGAGATAATACATATGGAGGAAAGTGGGTCATAAATCCTAGTGGTGGACTG
 ATTTCAAAGGGACACCCACTAGGCGCTACAGTCTTGTCTCAGTGTGCAGAACTCTGCTGGCAGTGAGAG
 GGAAGCCGGAAGAGGCAAGTTCTGGTGAAGGTTGGCTCTGCAGCATAATTTAGGCATTGGAGGAGC
 TGTGGTTGTAACACTCTACAAGATGGGTTTTCCGGAAGCCGCCAGTTCTTTTAGAAGCTCATCAAATTGAA
 GCTGTTCCAACCACTCTGCAAGTATGGATTTAAGGCAATCTTGTTTTTAAGGAGATTGAGAAGAAAC
 TTGAAGAGGAAGGGGAACAGTTTGTGAAGAAAATCGGTGGTATTTTTGCCTTCAAGGTGAAAGATGGCCC
 TGGGGGTAAAGAGGCCACCTGGGTGGTGGATGTGAAGAAATGGCAAAGGATCAGTGCTTCTAACTCAGAT
 AAGAAGGCTGACTGCACAATCACAATGGCTGACTCAGACTTCTGGCTTAAATGACTGGTAAAATGAATC
 CTCAGTCGGCCTTCTTTCAAGGCAAATGAAAATCACTGGCAACATGGGTCTCGCTATGAAGTTACAAAA
 TCTTCAGCTTCAGCCAGGCAACGCTAAGCTC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>RG219802 representing NM_002979
 Red=Cloning site Green=Tags(s)

MSSSPWEPATLRRVVFVGVGMKTFVKPGAENSRDYPDLAEEAGKKALADAQIPYSAVDQACVGYVFGDST
 CGQRAIYHSLGMTGIPIINVNNCATGSTALLFMRQLIQGGVAECVLALGFEMSKGSLGIKFSDRTIPT
 DKHVDLLINKYGLSAHPVAPQMFYAGKEHMEKYGTKEHFAGKIGWKNHKHSVNNPYSQFQDEYSLDEV
 ASKEVDFDLTILQCCPTSDGAAAAILASEAFVQKYGLQSKAVEILAQEMMTDLPSSFEEKSIIKMGVDFM
 SKEAARKCYEKSLTPNDIDVIELHDCFTNELLYEALGLCPEGQGATLVDRGDNTYGGKWINPSSGGL
 ISKGHPLGATGLAQCAELCWQLRGEAGKRQVPGAKVALQHNLGIGGAVVVTLYKMGFPEAASSFRTHQIE
 AVPTSSASDGFKANLVFKEIEKKLEEEGEQFVKKIGGIFAFKVKDGPGGKEATWVVDVKNKGKSVLPNSD
 KKADCTITMADSDFLALMTGKMNPSAFFQGLKITGNMGLAMKLQNLQLQPGNAKL

TRTRPLE - GFP Tag - V

Restriction Sites:

Sgfl-MluI

Cloning Scheme:


ACCN: NM_002979

ORF Size: 1641 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_002979.5](#)

RefSeq Size: 2697 bp

RefSeq ORF: 1644 bp

Locus ID: 6342

UniProt ID: [P22307](#)

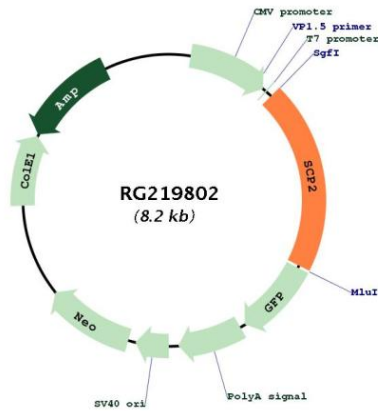
Cytogenetics: 1p32.3

Domains: thiolase, SCP2

Protein Pathways: Metabolic pathways, PPAR signaling pathway, Primary bile acid biosynthesis

Gene Summary: This gene encodes two proteins: sterol carrier protein X (SCPx) and sterol carrier protein 2 (SCP2), as a result of transcription initiation from 2 independently regulated promoters. The transcript initiated from the proximal promoter encodes the longer SCPx protein, and the transcript initiated from the distal promoter encodes the shorter SCP2 protein, with the 2 proteins sharing a common C-terminus. Evidence suggests that the SCPx protein is a peroxisome-associated thiolase that is involved in the oxidation of branched chain fatty acids, while the SCP2 protein is thought to be an intracellular lipid transfer protein. This gene is highly expressed in organs involved in lipid metabolism, and may play a role in Zellweger syndrome, in which cells are deficient in peroxisomes and have impaired bile acid synthesis. Alternative splicing of this gene produces multiple transcript variants, some encoding different isoforms.[provided by RefSeq, Aug 2010]

Product images:



Circular map for RG219802