

Product datasheet for **SC301154**

Sterol carrier protein 2 (SCP2) (NM_001007099) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Sterol carrier protein 2 (SCP2) (NM_001007099) Human Untagged Clone
Tag:	Tag Free
Symbol:	Sterol carrier protein 2
Synonyms:	NLTP; NSL-TP; SCOX; SCP-2; SCP-CHI; SCP-X; SCPX
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>OriGene ORF sequence for NM_001007099 edited ATGGGTTTTCCGGAAGCCGCCAGTTCTTTTAGAACTCATCAAATTGAAGCTGTTCCAACC AGCTCTGCAAGTGATGGATTTAAGGCAAATCTTGTTTTAAGGAGATTGAGAAGAACTT GAAGAGGAAGGGGAACAGTTTGTGAAGAAAATCGGTGGTATTTTTGCCTTCAAGGTGAAA GATGGCCCTGGGGTAAAGAGGCCACCTGGGTGGTGGATGTAAGAATGGCAAAGGATCA GTGCTTCTAACTCAGATAAGAAGGCTGACTGCACAATCACAATGGCTGACTCAGACTTC CTGGCTTAATGACTGGTAAAATGAATCCTCAGTCGGCCTTCTTTCAAGGCAAATTGAAA ATCACTGGCAACATGGGTCTCGCTATGAAGTTACAAAATCTTCAGCTTCAGCCAGGCAAC GCTAAGCTCTGA
Restriction Sites:	Please inquire
ACCN:	NM_001007099
Insert Size:	1600 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).
OTI Annotation:	This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.
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).



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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_001007099.1](#), [NP_001007100.1](#)

RefSeq Size: 1447 bp

RefSeq ORF: 432 bp

Locus ID: 6342

UniProt ID: [P22307](#)

Cytogenetics: 1p32.3

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]

Transcript Variant: This variant (3) results from transcription initiation from a downstream promoter. This variant (3) differs in the 5' UTR, lacks a portion of the 5' coding region, and initiates translation at a downstream start codon, compared to variant 1. The encoded isoform (5, also known as SCP2) has a distinct N-terminus and is shorter than isoform 1. **CCDS Note:** This CCDS ID represents a variant of the SCP2 locus that uses a downstream promoter, known as the SCP2 promoter. This promoter initiates transcription in an internal exon compared to the longer CCDS572.1 variant, which uses the upstream SCPx promoter. Data in PMIDs 7654720, 7698762 and 14563822, as well as chromatin regulatory features (including Ensembl ENSR00000282553 and ENSR00000282554), support the presence of an active downstream SCP2 promoter.