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# Product datasheet for SC301153

## Sterol carrier protein 2 (SCP2) (NM_001007098) Human Untagged Clone

### Product data:

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| **Product Type:** | Expression Plasmids |
| **Product Name:** | Sterol carrier protein 2 (SCP2) (NM_001007098) Human Untagged Clone |
| **Tag:** | Tag Free |
| **Symbol:** | SCP2 |
| **Synonyms:** | NLTP; NSL-TP; SCOX; SCP-2; SCP-CHI; SCP-X; SCPX |
| **Vector:** | pCMV6 series |
| **Fully Sequenced ORF:** | >NCBI ORF sequence for NM_001007098, the custom clone sequence may differ by one or more nucleotides<br>ATGTCCTCTTCCCCGTGGGAGCCTGCGACCCTGCGCCGGGTGTTCGTGGTGGGGGTTGGC<br>ATGACCAAGTTTGTGAAGCCTGGAGCTGAGAATTCAAGAGACTACCCTGACTTGGCAGAA<br>GAAGCAGGCAAGAAGGCTTTAGCTGATGCACAGATCCCTTATTCAGCAGTGGACCAGGCA<br>TGTGTTGGCTATGTTTTTGGTGTGGCAGAATGTGTCTTGGCTCTTGGGTTTGAGAAGATG<br>AGTAAGGGAAGCCTTGGAATAAAATTTTCAGATAGAACCATTCCCACTGATAAGCATGTT<br>GACCTCCTGATCAATAAGTATGGATTGTCTGCTCACCCAGTTGCTCCTCAGATGTTTGGG<br>TATGCTGGAAAAGAACATATGGAAAAATATGGAACAAAAATTGAACACTTTGCAAAAATT<br>GGATGGAAAAATCATAAACATTCAGTTAATAACCCGTATTCCCAGTTCCAAGATGAATAC<br>AGTTTAGATGAAGTGATGGCATCTAAAGAAGTTTTTGATTTTTTGACTATCTTACAATGT<br>TGTCCCACTTCAGATGGTGCTGCAGCAGCAATTTTGGCCAGTGAAGCATTTGTACAGAAG<br>TATGGCCTGCAATCCAAAGCTGTGGAAATTTTGGCACAAGAAATGATGACTGATTTGCCA<br>AGCTCGTTTGAAGAAAAAAGCATTATTAAAATGGTTGGCTTTGATATGAGTAAAGAAGCT<br>GCAAGAAAATGCTATGAGAAATCTGGCCTGACACCAAATGATATTGACGTAATAGAACTT<br>CACGATTGCTTTTCTACCAACGAACTCCTTACTTATGAAGCACTGGGACTCTGTCCAGAA<br>GGACAAGGTGCAACGCTGGTTGATAGAGGAGATAATACATATGGAGGAAAGTGGGTCATA<br>AATCCTAGTGGTGGACTGATTTCAAAGGGACACCCACTAGGCGCTACAGGAGGACATTCC<br>TGCTCTTGA |
| **Restriction Sites:** | Please inquire |
| **ACCN:** | NM_001007098 |
| **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. |

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| **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.<br>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.<br>3. Close the tube and incubate for 10 minutes at room temperature.<br>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.<br>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_001007098.1, NP_001007099.1 |
| **RefSeq Size:** | 2103 bp |
| **RefSeq ORF:** | 969 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]<br>Transcript Variant: This variant (2) has multiple differences in the coding region, compared to variant 1, one of which results in a translational frameshift. The resulting isoform (2) is shorter and has a distinct C-terminus, compared to isoform 1. It is unknown whether this isoform (2) is proteolytically processed like isoforms 1 and 5. |