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# Product datasheet for SC308201

## SELS (SELENOS) (NM_203472) Human Untagged Clone

### Product data:

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| **Product Type:** | Expression Plasmids |
| **Product Name:** | SELS (SELENOS) (NM_203472) Human Untagged Clone |
| **Symbol:** | SELENOS |
| **Synonyms:** | AD-015; ADO15; SBBI8; SELS; SEPS1; VIMP |
| **Mammalian Cell Selection:** | Neomycin |
| **Vector:** | pCMV6-Entry (PS100001) |
| **E. coli Selection:** | Kanamycin (25 ug/mL) |
| **Fully Sequenced ORF:** | >SC308201 representing NM_203472.<br>Blue=Insert sequence Red=Cloning site Green=Tag(s)<br><br>GCTCGTTTAGTGAACCGTCAGAATTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTG<br>GATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC<br>ATGGAACGCCAAGAGGAGTCTCTGTCCGCGCGGCCGGCCCTGGAGACCGAGGGGCTGCGCTTCCTGCAC<br>ACCACGGTGGGCTCCCTGCTGGCCACCTATGGCTGGTACATCGTCTTCAGCTGCATCCTTCTCTACGTG<br>GTCTTTCAGAAGCTTTCCGCCCGGCTAAGAGCCTTGAGGCAGAGGCAGCTGGACCGAGCTGCGGCTGCT<br>GTGGAACCTGATGTTGTTGTTAAACGACAAGAAGCTTTAGCAGCTGCTCGACTGAAAATGCAAGAAGAA<br>CTAAATGCGCAAGTTGAAAAGCATAAGGAAAAACTGAAACAACTTGAAGAAGAAAAAAGGAGACAGAAG<br>ATTGAAATGTGGGACAGCATGCAAGAAGGAAAAAGTTACAAAGGAAATGCAAAGAAGCCCCAGGAGGAA<br>GACAGTCCTGGGCCTTCCACTTCATCTGTCCTGAAACGGAAATCGGACAGAAAGCCTTTGCGGGGAGGA<br>GGTTATAACCCGTTGTCTGGTGAAGGAGGCGGAGCTTGCTCCTGGAGACCTGGACGCAGAGGCCCGTCA<br>TCTGGCGGATGA<br>ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGAT<br>TACAAGGATGACGACGATAAGGTTTAAACGGCCGGC |
| **Restriction Sites:** | SgfI-MluI |
| **Plasmid Map:** | |
| **ACCN:** | NM_203472 |
| **Insert Size:** | 564 bp |

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| **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).<br><br>The expression of this clone is not guaranteed due to the nature of selenoproteins. |
| **OTI Annotation:** | This clone encodes a selenoprotein containing the rare amino acid selenocysteine (Sec). Sec is encoded by UGA codon, which normally signals translational termination. Expression of this clone is not guaranteed due to the nature of selenoproteins. |
| **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_203472.2 |
| **RefSeq Size:** | 1417 bp |
| **RefSeq ORF:** | 564 bp |
| **Locus ID:** | 55829 |
| **UniProt ID:** | Q9BQE4 |
| **Cytogenetics:** | 15q26.3 |
| **Protein Families:** | Druggable Genome |
| **MW:** | 21 kDa |

**Gene Summary:**

This gene encodes a transmembrane protein that is localized in the endoplasmic reticulum (ER). It is involved in the degradation process of misfolded proteins in the ER, and may also have a role in inflammation control. This protein is a selenoprotein, containing the rare amino acid selenocysteine (Sec). Sec is encoded by the UGA codon, which normally signals translation termination. The 3' UTRs of selenoprotein mRNAs contain a conserved stem-loop structure, designated the Sec insertion sequence (SECIS) element, that is necessary for the recognition of UGA as a Sec codon, rather than as a stop signal. Two additional phylogenetically conserved stem-loop structures (Stem-loop 1 and Stem-loop 2) in the 3' UTR of this mRNA have been shown to function as modulators of Sec insertion. An alternatively spliced transcript variant, lacking the SECIS element and encoding a non-Sec containing shorter isoform, has been described for this gene (PMID:23614019). [provided by RefSeq, Jul 2017]
Transcript Variant: This variant (2) is alternatively spliced at the 3' end compared to variant 1, and lacks a selenocysteine (Sec) insertion sequence (SECIS) element in its 3' UTR, which is necessary for the recognition of UGA as a Sec codon. This results in translation termination at the UGA codon and a non-Sec containing shorter isoform (2) compared to isoform 1 (PMID:23614019).