

## Product datasheet for **KN315523**

### Selenop Mouse Gene Knockout Kit (CRISPR)

#### Product data:

Product Type:	Knockout Kits (CRISPR)
Format:	2 gRNA vectors, 1 GFP-puro donor, 1 scramble control
Donor DNA:	GFP-puro
Symbol:	Selenop
Locus ID:	20363
Components:	<p><b>KN315523G1</b>, Selenop gRNA vector 1 in pCas-Guide CRISPR vector (GE100002), Target Sequence: CTTGTTACAAAGCCCCGGAG</p> <p><b>KN315523G2</b>, Selenop gRNA vector 2 in pCas-Guide CRISPR vector (GE100002), Target Sequence: TCTCTGCTCCTCCATAGGGG</p> <p><b>KN315523D</b>, donor DNA containing left and right homologous arms and GFP-puro functional cassette.</p> <p>Homologous arm and GFP-puro sequences:  pUC vector backbone in gray; Left arm sequence in blue; GFP-puro in green; Right arm in violet</p> <pre> CTGGCACTTT ACAGGAAGAT TTCATGCAGG AAGAGCTAAG GGCCACCATG AACCACAGCC ACCATGTTGG TCTCCACCGC CATGTCCTCC CTTTACTTTC TGGGCTGATT TTTTTTTTTT TTCAGTTTTG TGCAGAGTTC ACAATAACA TTTCTAGAT TGGCAGAGGA TAGAATGAAG CCATCAGGGC TCAGTGCAGC TCAAATGTGT CAGAATGTGT TTGCAGAATG TTCTGTGACT ATGCATTACA GTTGAAGGT GTTTCTGAAT ATGTGTCCTT TCCCAGAGAG TTGCCTGGCT GTCTCATTAG GCACATTTC AAATGTGTGC TGCTCATGGA AATACTGTAC CATGCTGCGG GTAGCTAGCT ACCTCTGATC ATTCTCTGCT CTTTTTGCTG GCACTTTCCC CTTTACAGGA ATATTTAATG GAAGGAGGCT CATGACAATG GCGTAATGAG CCTAACAAAA TGGAAATAGA ATCCATATGC TAAGTTATAA TAAGTAGCAT TGTACCTACC GTGTTTAAAG AAATTCATAG CAATGACTGT GAAGTTATCA ATGAAGATTA CATCTCTTGT TTTATAGGAC AACCTCAGCA AGTGACAGTG GTTGCTCTTC TTCAAGCCAG CTGATACTTG TGTCTTCTGC AGGCATCCAG GTAAGTGATC TTTTAAGGCT TAGGATATTC TTAGCGAAAG GTTATTAAT ATTAATGTAT GCATATAAAA GGCAATATAA ATAGGAATAA TGTAATGGTT AAATAACACC TTTGAAGACA AATATGTTG CATAGCACAC ATCTAATGAA AAGATGAGGG CATCTTATAG CTGTACACAC ACACACACAC ACACACACAC ATACACACAC ACAAACACAC ACATACACAC CATAACCAT GGATATATCC AGTACTACCA AAATGTTTAC TGTGGCATTG CTGGGCTTTG AACATGTTTT CCTATTAGTG GAGCAGATTC TTTAAGAGCA GAGAAAGGCT GCAAGCCAGT ACACACACTA AATGCTAAGA TGCTAATAAA AGGTCCTGCA TCATTTAACA ACCATAAACA AAAAACATTG GTTGACTCAT CCACCAACTA TTAGTGGCAT AACATTCTGT ATATATGCAA AGTGAATCTA AGTTTATCTA ATTTGAAGCT CATGTTTCATG CAAACATTTA GCATTGTTTC AAGTTATAAA </pre> <p><b>GE100003</b>, scramble sequence in pCas-Guide vector</p>



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**Disclaimer:** These products are manufactured and supplied by OriGene under license from ERS. The kit is designed based on the best knowledge of CRISPR technology. The system has been functionally validated for knocking-in the cassette downstream the native promoter. The efficiency of the knock-out varies due to the nature of the biology and the complexity of the experimental process.

**RefSeq:** [NM\\_001042613](#), [NM\\_001042614](#), [NM\\_009155](#)

**UniProt ID:** [P70274](#)

**Synonyms:** AU018766; D15Ucla1; Se-P; selp; Sepp1

**Summary:** This gene encodes a selenoprotein that is predominantly expressed in the liver and secreted into the plasma. This selenoprotein is unique in that it contains multiple selenocysteine (Sec) residues per polypeptide (10 in mouse), and accounts for most of the selenium in plasma. It has been implicated as an extracellular antioxidant, and in the transport of selenium to extra-hepatic tissues via apolipoprotein E receptor-2 (apoER2). Mice lacking this gene exhibit neurological dysfunction, suggesting its importance in normal brain function. 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. The mRNA for this selenoprotein contains two SECIS elements. Alternatively spliced transcript variants differing in 5' non-coding region have been described for this gene. Expression of these variants varies in different tissues and developmental stages (PMID:23064117). [provided by RefSeq, Feb 2017]

### Product images:

