

Product datasheet for **RN209150**

Selenow (NM_013027) Rat Untagged Clone

Product data:

Product Type: Expression Plasmids
Product Name: Selenow (NM_013027) Rat Untagged Clone
Symbol: Selenow
Synonyms: SelW; Sepw1
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
Cell Selection: Neomycin
Fully Sequenced ORF: >RN209150 representing NM_013027
Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGC**C

ATGGCGCTAGCCGTTTCGAGTCGTGATTGTGGAGCTTGAGGCTATAAGCCCAAGTATCTCCAGCTCAAGG
AGAAGCTAGAACATGAGTTCCTCCGGATGCCTGGACATCTGTGGCGAGGGGACTCCCAGGTACCCGGTT
CTTTGAAGTGACGGTAGCCGGGAAGTTGGTTCACTCCAAGAAGAGAGGTGATGGCTACGTGGATACAGAG
AGCAAGTTCGGAACTGGTGACTGCCATCAAAGCCGCTTGGCTCAGTGCCAGTGA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: SgfI-MluI
ACCN: NM_013027
Insert Size: 267 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). The 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).



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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_013027.3](#), [NP_037159.4](#)

RefSeq Size: 717 bp

RefSeq ORF: 267 bp

Locus ID: 25545

UniProt ID: [P63301](#)

Cytogenetics: 1q21

Gene Summary: This gene encodes a selenoprotein containing a selenocysteine (Sec) residue, which is encoded by the UGA codon that normally signals translation termination. The 3' UTRs of selenoprotein mRNAs contain a conserved stem-loop structure, the Sec insertion sequence (SECIS) element that is necessary for the recognition of UGA as a Sec codon rather than as a stop signal. This protein is highly expressed in skeletal muscle and brain. It belongs to the SelWTH family, which possesses a thioredoxin-like fold and a conserved CxxU (C is cysteine, U is Sec) motif, suggesting a redox function for this gene. Studies in mouse show that this selenoprotein is involved in muscle growth and differentiation, and in the protection of neurons from oxidative stress during neuronal development. A pseudogene of this locus has been identified on chromosome 10. [provided by RefSeq, Aug 2017]