

## Product datasheet for **RR209150**

### Selenow (NM\_013027) Rat Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Selenow (NM\_013027) Rat Tagged ORF Clone  
**Symbol:** Selenow  
**Synonyms:** SelW; Sepw1  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**ORF Nucleotide Sequence:** >RR209150 representing NM\_013027  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGCGCTAGCCGTTTCGAGTCGTATTGTGGAGCTTGAGGCTATAAGCCCAAGTATCTCCAGCTCAAGG  
AGAAGCTAGAACATGAGTTCGCCGATGCCTGGACATCTGTGGCGAGGGGACTCCCCAGGTCACCGGTT  
CTTTGAAGTGACGGTAGCCGGGAAGTTGGTTCCTCCAAGAAGAGAGGTGATGGCTACGTGGATACAGAG  
AGCAAGTTCGGAAACTGGTACTGCCATCAAAGCCGCCTGGCTCAGTGCCAG

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RR209150 representing NM\_013027  
Red=Cloning site Green=Tags(s)

MALAVRVVYCGA\*GYKPKYLQLKEKLEHEFPGLDICEGTPQVTGFVETVAGKLVHSKKRGDGYVDTE  
SKFRKLVTAIKAALAQCQ

**TRTRPLEQKLISEEDLAANDILDYKDDDDKV**

**Restriction Sites:** Sgfl-MluI



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Cloning Scheme:



ACCN: NM\_013027

ORF Size: 264 bp

OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#) 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.

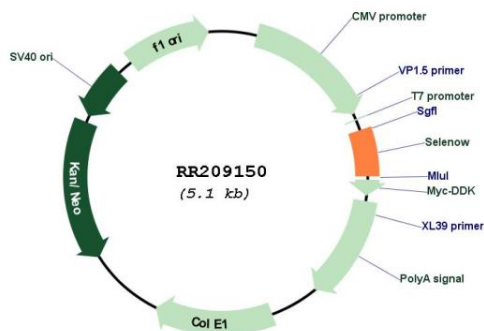
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

- Reconstitution Method:
1. Centrifuge at 5,000xg for 5min.
  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  
**MW:** 9.7 kDa

**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]

### Product images:



Circular map for RR209150