Product datasheet for MG200204

Selenow (NM_009156) Mouse Tagged ORF Clone

Product data:

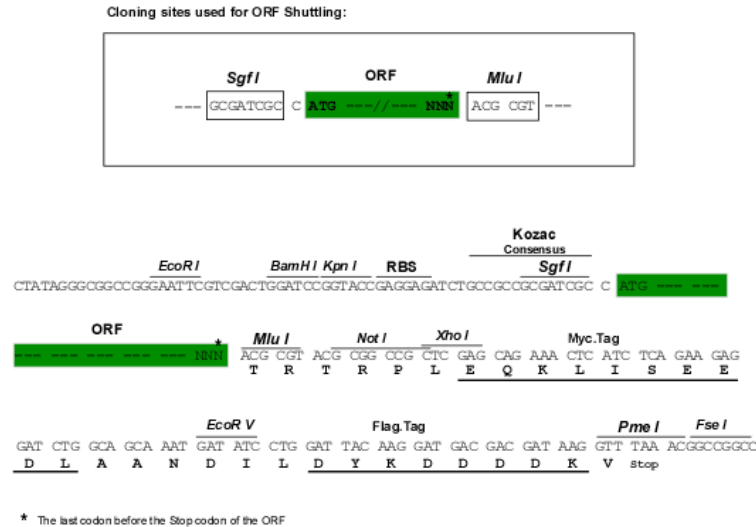|	
Product Type:	Expression Plasmids
Product Name:	Selenow (NM_009156) Mouse Tagged ORF Clone
Symbol:	Selenow
Synonyms:	selW; Sep; Sepw1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>MG200204 representing NM_009156 Red=Cloning site Blue=ORF Green=Tags(s) TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC GCCGCGATCGCC ATGGCGCTCGCCGTTCGAGTCGTGTATTGTGGAGCTTGAGGCTATAAGCCCAAGTACCTCCAGCTCAAGG AGAAGCTAGAACATGAGTTCCCCGGATGCCTGGACATTTGTGGCGAGGGGACTCCCCAGGTCACCGGGTT CTTTGAAGTGACAGTAGCCGGGAAGTTGGTCCACTCCAAGAAGAGAGGTGATGGCTATGTGGATACAGAG AGCAAGTTCCGGAAACTGGTGACCGCCATCAAAGCTGCCTTGGCTCAGTGCCAG ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA
Protein Sequence:	>MG200204 representing NM_009156 Red=Cloning site Green=Tags(s) MALAVRVVYCGA*GYKPKYLQLKEKLEHEFPGCLDICGEGTPQVTGFFEVTVAGKLVHSKKRGDGYVDTE SKFRKLVTAIKAALAQCQ TRTRPLE – GFP Tag – V
Restriction Sites:	SgfI-MluI

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Cloning Scheme:

Cloning sites used for ORF Shuttling:

```
           Sgf I              ORF            Mlu I
      --- GCGATCGC  C ATG  ----//---- NNN  ACG  CGT  ---
```

```
                                                      Kozac
                                                    Consensus
            EcoR I          BamH I Kpn I   RBS         Sgf I
CTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCCGCCGCGATCGC  C ATG ---- ----
```

```
      ORF                  Mlu I      Not I      Xho I          Myc.Tag
                    *
---- ---- ---- ---- NNN  ACG CGT  ACG CGG CCG  CTC GAG  CAG AAA CTC ATC TCA GAA GAG
                         T   R     T   R   P    L   E    Q   K   L   I   S   E   E
```

```
               EcoR V                 Flag.Tag               Pme I    Fse I
GAT CTG GCA GCA AAT  GAT ATC  CTG GAT TAC AAG GAT GAC GAC GAT AAG  GTT TAA  ACGGCCGGCC
 D   L   A   A   N    D   I    L   D   Y   K   D   D   D   D   K    V   Stop
```

* The last codon before the Stop codon of the ORF

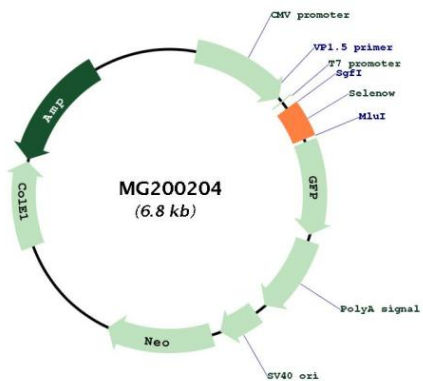|	
ACCN:	NM_009156
OTI Disclaimer:	The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. 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.

Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	NM_009156.2, NP_033182.1
RefSeq Size:	722 bp
RefSeq ORF:	267 bp
Locus ID:	20364
UniProt ID:	P63300
Cytogenetics:	7 A2
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, and has been shown to function as a glutathione-dependent antioxidant in vivo. Studies in mouse suggest that this selenoprotein is involved in muscle growth and differentiation, and in the protection of neurons from oxidative stress during neuronal development. [provided by RefSeq, Apr 2017]

Product images:

Circular map for MG200204