

## **Product datasheet for MR200234**

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#### Selenok (NM 019979) Mouse Tagged ORF Clone

**Product data:** 

**Product Type:** Expression Plasmids

**Product Name:** Selenok (NM\_019979) Mouse Tagged ORF Clone

Symbol: Selenok

**Synonyms:** 30kD; 1110001C03Rik; AA673253; Hsp30; HSPC0; HSPC030; Se; Selk

Mammalian Cell

Selection:

Neomycin

Vector:pCMV6-Entry (PS100001)E. coli Selection:Kanamycin (25 ug/mL)ORF Nucleotide>MR200234 ORF sequence

Sequence: Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC

GCCGCGATCGCC

ATGGTTTACATCTCGAATGGTCAGGTGTTGGACAGCAGGAATCAGTCCCCATGGAGAGTGTCTTTCCTAA CAGACTTCTTCTGGGGAATAGCAGAATTCGTGGTTTTCTTTTTCAAAACTCTGCTTCAGCAAGATGTGAA GAAAAGAAGAGGGCTACGGGAGCTCCTCTGATTCCAGATACGACGATGGAAGAGGGCCACCAGGAAACCCT CCGCGAAGAATGGGTAGGATCAGTCACCTTCGTGGCCCCAGCCCTCCTCCAATGGCTGGTGGATGAGGAA

GG

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT

ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >MR200234 protein sequence

Red=Cloning site Green=Tags(s)

 ${\tt MVYISNGQVLDSRNQSPWRVSFLTDFFWGIAEFVVFFFKTLLQQDVKKRRGYGSSSDSRYDDGRGPPGNP}$ 

PRRMGRISHLRGPSPPPMAGG\*GR

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

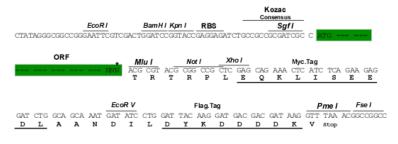
**Restriction Sites:** Sgfl-Mlul





#### **Cloning Scheme:**





<sup>\*</sup> The last codon before the Stop codon of the ORF

**ACCN:** NM 019979

**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:** <u>NM 019979.1</u>, <u>NM 019979.2</u>, <u>NP 064363.2</u>

RefSeq Size: 1018 bp



 RefSeq ORF:
 285 bp

 Locus ID:
 80795

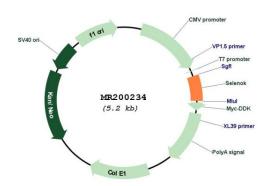
 UniProt ID:
 Q9JLJ1

 Cytogenetics:
 14 A3

**Gene Summary:** The protein encoded by this gene belongs to the selenoprotein K family. It is a

transmembrane protein that is localized in the endoplasmic reticulum (ER), and is involved in ER-associated degradation (ERAD) of misfolded, glycosylated proteins. It also has a role in the protection of cells from ER stress-induced apoptosis. Knockout studies in mice show the importance of this gene in promoting Ca(2+) flux in immune cells and mounting effective immune response. 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. Multiple pseudogenes of this locus have been identified. [provided by RefSeq, Sep 2017]

### **Product images:**



Circular map for MR200234