

Product datasheet for RG224986

OriGene Technologies, Inc.

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Small EDRK rich factor 1 (SERF1A) (NM_022968) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids

Product Name: Small EDRK rich factor 1 (SERF1A) (NM_022968) Human Tagged ORF Clone

Tag: TurboGFP Symbol: SERF1A

Synonyms: 4F5; FAM2A; H4F5; SERF1; SMAM1

Mammalian Cell

Selection:

Neomycin

Vector: pCMV6-AC-GFP (PS100010)

E. coli Selection: Ampicillin (100 ug/mL)

ORF Nucleotide >RG224986 representing NM_022968

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

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC

GCCGCGATCGCC

ATGGCCCGTGGAAATCAACGAGAACTTGCCCGCCAGAAAAACATGAAGAAAACCCAGGAAATTAGCAAGGGAAAGAGGGAAAGAGGATAGCTTGACTGCCTCTCAGAGAAAGCAGGGGACTCTGAGATCATGCAAGAAAA

GCAGAAGGCAGCTAATGAGAAGAAGTCTATGCAGACAAGAGAAAAG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG224986 representing NM_022968

Red=Cloning site Green=Tags(s)

MARGNQRELARQKNMKKTQEISKGKRKEDSLTASQRKQRDSEIMQEKQKAANEKKSMQTREK

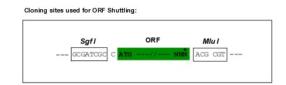
TRTRPLE - GFP Tag - V

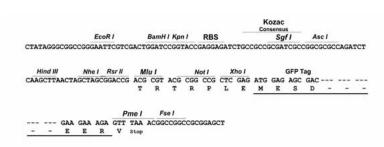
Restriction Sites: Sgfl-Mlul



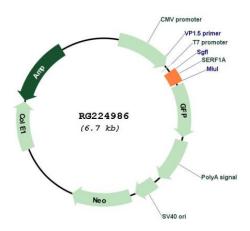


Cloning Scheme:





Plasmid Map:



ACCN: NM_022968

ORF Size: 186 bp

Small EDRK rich factor 1 (SERF1A) (NM_022968) Human Tagged ORF Clone - RG224986

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

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression

varies depending on the nature of the gene.

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 022968.2</u>

 RefSeq Size:
 722 bp

 RefSeq ORF:
 189 bp

 Locus ID:
 8293

 UniProt ID:
 075920

Cytogenetics: 5q13.2

Protein Families: Transmembrane

Gene Summary: This gene is part of a 500 kb inverted duplication on chromosome 5q13. This duplicated

region contains at least four genes and repetitive elements which make it prone to rearrangements and deletions. The repetitiveness and complexity of the sequence have also

caused difficulty in determining the organization of this genomic region. The duplication region includes both a telomeric and a centromeric copy of this gene. Deletions of this gene, the telomeric copy, often accompany deletions of the neighboring SMN1 gene in spinal muscular atrophy (SMA) patients, and so it is thought that this gene may be a modifier of the SMA phenotype. The function of this protein is not known; however, it bears low-level homology with the RNA-binding domain of matrin-cyclophilin, a protein which colocalizes

spliced transcripts have been documented but it is unclear whether alternative splicing occurs for both the centromeric and telomeric copies of the gene. [provided by RefSeq, Jul 2008]

with small nuclear ribonucleoproteins (snRNPs) and the SMN1 gene product. Alternatively