

Product datasheet for **RC226930**

SAE1 (NM_001145714) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: SAE1 (NM_001145714) Human Tagged ORF Clone
Tag: Myc-DDK
Symbol: SAE1
Synonyms: AOS1; HSPC140; SUA1; UBLE1A
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
ORF Nucleotide Sequence: >RC226930 representing NM_001145714
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGGATCGCC**

ATGGTGGAGAAGGAGGAGGCTGGCGCGGCATTAGCGAGGAGGAGGCGGCACAGTATGACCGGCAGATCC
GCCTGTGGGGACTGGAGGCCAGAAACGGCTGCGGGCCTCTCGGGTGCTTCTTGTCGGCTTGAAAGGACT
TGGGGCTGAAATTGCCAAGAATCTCATCTTGGCAGGAGTAAAGGACTGACCATGCTGGATCACGAACAG
GTAAGTCCAGAAGATCCCGGAGCTCAGTCTTGATTCGACTGGTCTGTTGGCCGAAATAGGGCTGAAG
CCTCTTTGGAGCGAGCTCAGAATCTCAACCCATGGTGGATGTGAAGGTGGACACTGAGGATATAGAGAA
GAAACCAGAGTCAATTTCACTCAATTCGATGCTGTGTCTGACTTGCTGCTCCAGGGATGTCATAGTT
AAAGTTGACCAGATCTGTACAAAAATAGCATCAAGTTCTTTACAGGAGATGTTTTGGCTACCATGGAT
ACACATTTGCCAATCTAGGAGAGCATGAGTTTGTAGAGGAGAAAATAAGTTGCCAAAGTTAGCCAAGG
AGTAGAAGATGGGCCGACCAAGAGAGCAAACTTGATTCTTCTGAGACAACGATGGTCAAAAAGAAG
GTGGTCTTCTGCCCTGTTAAAGAAGCCCTGGAGGTGGACTGGAGCAGTGAGAAAGCAAAGGCTGCTCTGA
AGCGCACGACCTCCGACTACTTTCTCCTTCAAGTACTGCTTCTCCGAGATGGCCCCAGTGTGTGCGGTG
GTTGGAGGGATTTGGCACAGGAAATTG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC226930 representing NM_001145714
 Red=Cloning site Green=Tags(s)

MVEKEEAGGGISEEEAAQYDRQIRLWGLEAQKRLRASRVLLVGLKGLGAEIAKNLILAGVKGLTMLDHEQ
 VTPEDPGAQFLIRTGSVGRNRAEASLERAQNLNPMVDKVDTEIEKKPESFFTQFQDAVCLTCCSRDVIV
 KVDQICHKNSIKFFFTGDFVGYHGYTFANLGEHEFVEEKTKVAKVSQGVEDGPDTKRAKLDSSETTMVKKK
 VVFCPVKEALEVDWSSEKAKAALKRTTSDYFLLQGTASPRWPQCVRWLEGFWHRKL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk8048_a07.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001145714

ORF Size: 798 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](#)

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: [NM_001145714.2](#)

RefSeq ORF: 801 bp

Locus ID: 10055

UniProt ID: [Q9UBE0](#)

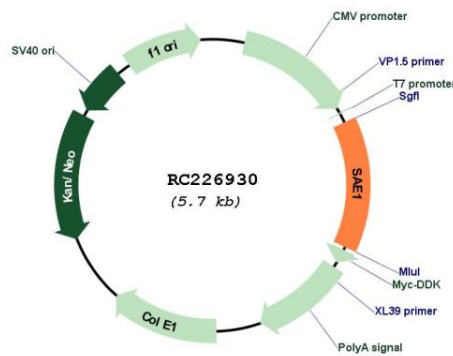
Cytogenetics: 19q13.32

Protein Pathways: Ubiquitin mediated proteolysis

MW: 29.6 kDa

Gene Summary: Posttranslational modification of proteins by the addition of the small protein SUMO (see SUMO1; MIM 601912), or sumoylation, regulates protein structure and intracellular localization. SAE1 and UBA2 (MIM 613295) form a heterodimer that functions as a SUMO-activating enzyme for the sumoylation of proteins (Okuma et al., 1999 [PubMed 9920803]). [supplied by OMIM, Mar 2010]

Product images:



Circular map for RC226930