

Product datasheet for **RC226908**

SAE1 (NM_001145713) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	SAE1 (NM_001145713) 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:	>RC226908 representing NM_001145713 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGC**

ATGGTGGAGAAGGAGGAGGCTGGCGCGGCATTAGCGAGGAGGAGGCGGCACAGTATGACCGGCAGATCC
 GCCTGTGGGGACTGGAGGCCAGAAACGGCTGCGGGCCTCTCGGGTGCTTCTGTGCGCTTGAAAGGACT
 TGGGGCTGAAATTGCCAAGAATCTCATCTTGGCAGGAGTGAAAGGACTGACCATGCTGGATCACGAACAG
 GTAACCTCAGAAGATCCCGGAGCTCAGTTCTTGATTCTGACTGGGTCTGTTGGCCGAAATAGGGCTGAAG
 CCTCTTTGGAGCGAGCTCAGAATCTCAACCCCATGGTGGATGTGAAGGTGGACACTGAGGATATAGAGAA
 GAAACCAGAGTCATTTTCACTCAATTCGATGCTGTGTCTGACTTGCTGCTCCAGGGATGTCATAGTT
 AAAGTTGACCAGATCTGTCAAAAAATAGCATCAAGTTCTTTACAGGAGATGTTTTGGCTACCATGGAT
 ACACATTTGCCAATCTAGGAGAGCATGAGTTTGTAGAGGAGAAAACTAAAGTTGCCAAAGTTAGCCAAGG
 AGTAGAAGATGGGCCCGACACCAAGAGAGCAAACTTGATTCTTCTGAGACAACGATGGTCAAAAAGAAG
 GTGGTCTTCTGCCCTGTTAAAGAAGCCCTGGAGGTGGACTGGAGCAGTGAGAAAGCAAAGGCTGCTCTGA
 AGCGCACGACCTCCGACTACTTTCTCCTTCAAGGCCCTGTCTCAGCGGGACCCCTCTCACAACAATTCT
 TCTTCTTCGATGGCATGAAGGGGAATGGGATTGTGGAGTGCCTTGGCCCCAAGTGAATCAAGATTTGGC
 AGCCCCAGAGATGCCAACTGCAGCATGCCACCTGTATTCCCTGTCCCCTTCCTCA

ACGCGTACGCGGCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA


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Protein Sequence: >RC226908 representing NM_001145713
 Red=Cloning site Green=Tags(s)

MVEKEEAGGGISEEEAAQYDRQIRLWGLEAQKRLRASRVLLVGLKGLGAEIAKNLILAGVKGLTMDHEQ
 VTPEDPGAQFLIRTGSVGRNRAEASLERAQNLNPMVDVKVDTEDIEKKPESFFTQFDAVCLTCCSRDVIV
 KVDQICHKNSIKFFTGDVFGYHGYYTFANLGEHEFVEEKTAKVKSQGVEDGPDTRAKLDSSETTMVKKK
 VVFCPVKEALEVDWSSEKAKAALKRTTSDYFLLQGPVSAGPSSQQLLLLRWHEGEWDCGVPWPQVNSRFG
 SPRDANCSMPTCIPCPLPS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk8050_e12.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001145713

ORF Size: 897 bp

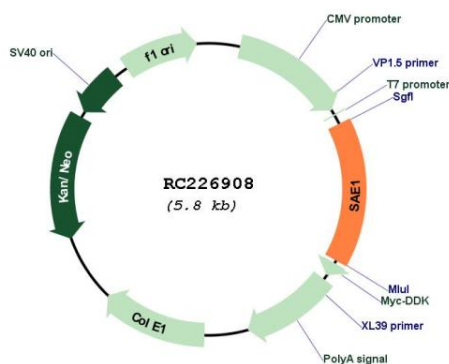
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially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

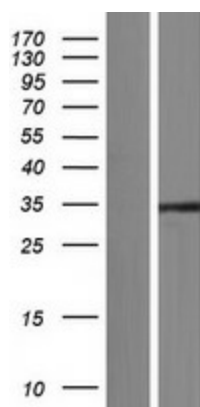
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

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:	<u>NM_001145713.2</u>
RefSeq ORF:	900 bp
Locus ID:	10055
UniProt ID:	<u>Q9UBE0</u>
Cytogenetics:	19q13.32
Protein Pathways:	Ubiquitin mediated proteolysis
MW:	32.9 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]

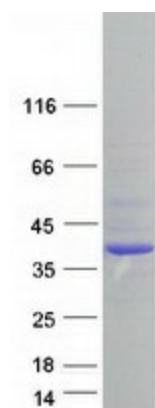
Product images:



Circular map for RC226908



Western blot validation of overexpression lysate (Cat# [LY428977]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC226908 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified SAE1 protein (Cat# [TP326908]). The protein was produced from HEK293T cells transfected with SAE1 cDNA clone (Cat# RC226908) using MegaTran 2.0 (Cat# [TT210002]).