

Product datasheet for RC201820

SAE1 (NM_005500) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	SAE1 (NM_005500) 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:	>RC201820 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGTGGAGAAGGAGGAGGCTGGCGGGCATTAGCGAGGAGGAGGGCGGCACAGTATGACCGGCAGATCC
GCCTGTGGGGACTGGAGGCCAGAAACGGCTGCGGGCCTCTCGGGTGCTTCTTGTGCGCTTGAAAGGACT
TGGGGCTGAAATTGCCAAGAATCTCATCTTGGCAGGAGTAAAGGACTGACCATGCTGGATCACGAACAG
GTAACCCAGAAGATCCCGGAGCTCAGTCTTGATTCGACTGGTCTGTTGGCCGAAATAGGGCTGAAG
CCTCTTTGGAGCGAGCTCAGAATCTCAACCCATGGTGGATGTGAAGGTGGACACTGAGGATATAGAGAA
GAAACCAGAGTCAATTTCACTCAATTCGATGCTGTGTCTGACTTGCTGCTCCAGGGATGTCATAGTT
AAAGTTGACCAGATCTGTCAAAAAATAGCATCAAGTTCTTTACAGGAGATGTTTTGGCTACCATGGAT
ACACATTTGCCAATCTAGGAGAGCATGAGTTTGTAGAGGAGAAAATAAGTTGCCAAAGTTAGCCAAGG
AGTAGAAGATGGGCCGACCAAGAGAGCAAACTTGATTCTTCTGAGACAACGATGGTCAAAAAGAAAG
GTGGTCTTCTGCCCTGTTAAAGAAGCCCTGGAGGTGGACTGGAGCAGTGAAGCAAAAGGCTGCTCTGA
AGCGCACGACCTCCGACTACTTTCTCCTCAAGTGCTCTTAAAGTTCCGTACAGATAAAGGAAGAGATCC
CAGTCTGATACATATGAGGAAGATTCTGAGTTGTTGCTCCAGATACGAAATGATGTGCTTGACTCACTG
GGTATTAGTCTGACCTGCTTCTGAGGACTTTGTCAGGTACTGCTTCCGAGATGGCCCAAGTGTGTG
CGGTGGTTGGAGGATTTGGCACAGAAATTGTGAAGGCCCTGTCTCAGCGGGACCCCTCCACAACAA
CTTCTTCTTTCGATGGCATGAAGGGGAATGGGATTGTGGAGTGCCTTGCCCAAG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC201820 protein sequence
 Red=Cloning site Green=Tags(s)

MVEKEEAGGGISEEEAAQYDRQIRLWGLEAQKRLRASRVLLVGLKGLGAEIAKNLILAGVKGLTMLDHEQ
 VTPEDPGAQFLIRTGSVGRNRAEASLERAQNLNPMVDVKVDTEDIEKKPESFFTQFDAVCLTCCSRDVIV
 KVDQICHKNSIKFFTDVFGYHGYYTFANLGEHEFVEEKTAKVKSQGVEDGPDTKRAKLDSETTMVKKK
 VVFCPVKEALEVDWSSEKAKAALKRTTSDYFLLQVLLKFRDVKGRDPSSDTYEEDSELLQIRNDVLDL
 GISPDLLPEDFVRYCFSEMAPVCAVVGGLAQEIVKALSQRDPPHNNFFFDGMKNGIVECLGPK

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6151_h01.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_005500

ORF Size: 1038 bp

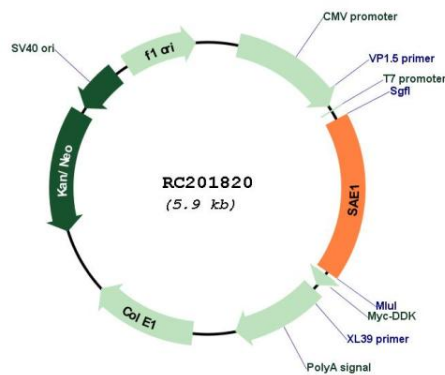
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially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

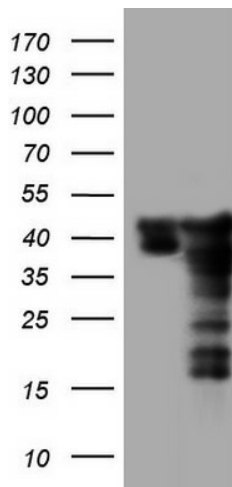
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:	<ol style="list-style-type: none">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_005500.3
RefSeq Size:	2538 bp
RefSeq ORF:	1041 bp
Locus ID:	10055
UniProt ID:	Q9UBE0
Cytogenetics:	19q13.32
Domains:	ThiF
Protein Pathways:	Ubiquitin mediated proteolysis
MW:	38.4 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]

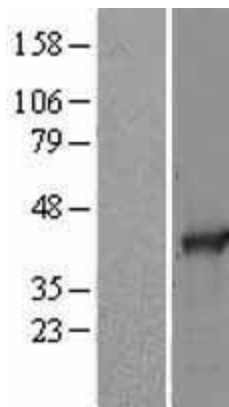
Product images:



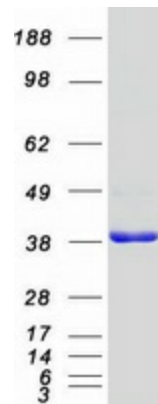
Circular map for RC201820



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY SAE1 (Cat# RC201820, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-SAE1 (Cat# [TA805143]). Positive lysates [LY401688] (100ug) and [LC401688] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY429497]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with [RC227950] using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified SAE1 protein (Cat# [TP301820]). The protein was produced from HEK293T cells transfected with SAE1 cDNA clone (Cat# RC201820) using MegaTran 2.0 (Cat# [TT210002]).