

Product datasheet for **SC116689**

SAE1 (NM_005500) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	SAE1 (NM_005500) Human Untagged Clone
Tag:	Tag Free
Symbol:	SAE1
Synonyms:	AOS1; HSPC140; SUA1; UBLE1A
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>OriGene ORF within SC116689 sequence for NM_005500 edited (data generated by NextGen Sequencing)

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ATGGTGGAGAAGGAGGAGGCTGGCGGCGCATTAGCGAGGAGGAGCGGCACAGTATGAC
CGGCAGATCCGCCTGTGGGGACTGGAGGCCAGAAACGGCTGCGGCCTCTCGGGTGCTT
CTTGTCGGCTTGAAGGACTTGGGGCTGAAATTGCCAAGAATCTCATCTTGGCAGGAGTG
AAAGGACTGACCATGCTGGATCACGAACAGGTAACCCAGAAGATCCCGGAGCTCAGTTC
TTGATTCTGACTGGGTCTGTTGGCCGAAATAGGGCTGAAGCCTCTTTGGAGCGAGCTCAG
AATCTCAACCCCATGGTGGATGTGAAGGTGGACACTGAGGATATAGAGAAGAAACCAGAG
TCATTTTTCACTCAATTCGATGCTGTGTGTCTGACTTGCTGCTCCAGGGATGTCATAGTT
AAAGTTGACCAGATCTGTCACAAAAATAGCATCAAGTTCTTTACAGGAGATGTTTTTGGC
TACCATGGATACACATTTGCCAATCTAGGAGAGCATGAGTTTGTAGAGGAGAAAACATAAA
GTTGCCAAAGTTAGCCAAGGAGTAGAAGATGGGCCCGACACCAAGAGAGCAAAAACCTGAT
TCTTCTGAGACAACGATGGTCAAAAAGAAGGTGGTCTTCTGCCCTGTTAAAGAAGCCCTG
GAGGTGGACTGGAGCAGTGAGAAAGCAAAGGCTGCTCTGAAGCGCACGACCTCCGACTAC
TTTCTCCTTCAAGTGCTCTTAAAGTTCCGTACAGATAAAGGAAGAGATCCCAGTTCTGAT
ACATATGAGGAAGATTCTGAGTTGTTGCTCCAGATACGAAATGATGTGCTTGACTCACTG
GGTATTAGTCCTGACCTGCTTCTGAGGACTTTGTCAGGTAAGTCTTCTCCGAGATGGCC
CCAGTGTGTGCGGTGGTTGGAGGGATTTTGGCACAGGAAATTGTGAAGGCCCTGTCTCAG
CGGGACCCTCCTCACAACAACCTTCTTCTTTCGATGGCATGAAGGGGAATGGGATTGTG
GAGTGCCTTGGCCCAAGTGA

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Clone variation with respect to NM_005500.2



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5' Read Nucleotide Sequence:

>OriGene 5' read for NM_005500 unedited
 AAATTTGGGATTTTGTAAATCCGACTTACTATAGGGNCGGACCGCAATTCGGCACGAGG
 CCGGAGCTGAGGCAGGAAGAGCCGGCGCCATGGTGGAGAAGGAGGAGGCTGGCGGCGGCA
 TTAGCGAGGAGGAGGCGGCACAGTATGACCGGCAGATCCGCCTGTGGGACTGGAGGCC
 AGAAACGGCTGCGGGCCTCTCGGGTGTCTTGTGGCTTGAAGGACTTGGGGCTGAAA
 TTGCCAAGAATCTCATCTTGGCAGGAGTGAAGGACTGACCATGCTGGATCACGAACAGG
 TAACTCCAGAAGATCCCGGAGCTCAGTTCTTGATTCTGACTGGGTCTGTTGGCCGAAATA
 GGGCTGAAGCCTCTTTGGAGCGAGCTCAGAATCTCAACCCCATGGTGGATGTGAAGGTGG
 ACACTGAGGATATAGAGAAGAAACCAGAGTCATTTTTCACTCAATTTCGATGCTGTGTGTC
 TGACTTGCTGCTCCAGGGATGTCATAGTTAAAGTTGACCAGATCTGTCACAAAAATAGCA
 TCAAGTCTTTACAGGAGATGTTTTGGCTACCATGGATACACATTTGCCAATCTAGGAG
 AGCATGAGTTTGTAGAGGAGAAAATAAGTTGCCAAAGTTAGCCAAGGAGTAGAAGATG
 GGCCCGACACCAAGAGAGCAAACTTGATTCTTCTGAGACAACGATGGTCAAAAAGAAGG
 TGGTCTTCTGCCCTGTTAAAGAAGCCCTGNGAGTGGACTGGAGCAGTGAGAAAGCAAGGC
 TGCTCTGAAGCGCACGACCTNCGACTACTTTCTCCTTNCAGTGTCTTAAAGTCCGTAC
 AGATNAAGGAAGAGATCCAGTCTGATACATATGAAGAAAGATTCTGAGTGNTGCTNCA
 GATACGAATGATGTGC

3' Read Nucleotide Sequence:

>OriGene 3' read for NM_005500 unedited
 AGAGTCGAGTTTTTTTTTTTTTTTTTTCCTAAAGCAAGTAACTTTATTATCATTCTTTA
 AAAAGAACCAAGGAAAATTCACAACATATGTGAAACACAAACAGCTGTGGTTTAGGAGGT
 AAACAAAGGACCAACATAGCCCTGAAATGCAACAGCCTCTGAGTGACTTGAGCCGCATGT
 GACTGGGGTTCTGTTAAAGGGCAGGCTCCTCCCTCTAGCCCTGAAGCCCCAGGAACCT
 GCCTTGAAAGACAAGCTCTAATACTCAACTGCAGGGTCTCGCCCTAACATCCAAGAC
 TTGGTAGCATCTCCTTTCTCCAAAACCCAGCTGGAACCAACTAATCCTAAACGAAAAC
 TCAAGAACAGCACACCAGATGCCACCTGTTGTTTGTGAGGGTCTCAAACCTCCAGAGGAAA
 TGCATTTGCCTGTGATGGTTTTCTCTCTAAGGGCACCTGTCTGAACTTGGAGCTGTGCT
 TCCACTGGTGCCTCATGGNGCCTGGGCCTACTCTCCACCTGAATTCACACTTTTCTCTAT
 AGGTATCAGGTGGGAATAAGTCCAAGAAGGTGACAAGAGGCTCCCGAGCACAGAGCTTG
 CTCATTTCTGNCANGCATCTCCACAATGCCCCANNAGGGCTGCGAGGCCCGNACAGCA
 TANGGACAGAGAAAGGGCANAGGGGTGCTTGAAGTGTCTCACTCANGGGAGCTGCCA
 GGCCCCGGATGACANGCANCCTGAACAGTGTGGAACAAGACAGNCACCTGCGGCCCT
 TGTCNAGCANCTGCTTNTGATGGGAAANCAACGTCGNCACCACCTTCTTCTGTCANGAA
 ATGNTNTGTATCGGGCCCATGACTCAGTTTNCCTTGTGAGAGTGCCTTCATGAAGAAGG
 NGACAGGNATACAGNTGGCATGCTGCANTGGCATCTCTGGGCTGCAAACTTGGNTACTT
 GGGGCANGACTNACAATCCATTCCTTATGCTCANAAAAAAATGTGNAGAGAGGTCGCTA
 AAAGGCTNCAATNCTG

Restriction Sites:

NotI-NotI

ACCN:

NM_005500

Insert Size:

2050 bp

OTI Disclaimer:

Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

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_005500.1](#), [NP_005491.1](#)

RefSeq Size: 2119 bp

RefSeq ORF: 1041 bp

Locus ID: 10055

UniProt ID: [Q9UBE0](#)

Cytogenetics: 19q13.32

Domains: ThiF

Protein Pathways: Ubiquitin mediated proteolysis

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]
Transcript Variant: This variant (1) encodes the longest isoform (a).