

## Product datasheet for **RR207212**

### Sae1 (NM\_001012063) Rat Tagged ORF Clone

#### Product data:

Product Type: Expression Plasmids  
 Product Name: Sae1 (NM\_001012063) Rat Tagged ORF Clone  
 Tag: Myc-DDK  
 Symbol: Sae1  
 Synonyms: Uble1a  
 Vector: pCMV6-Entry (PS100001)  
 E. coli Selection: Kanamycin (25 ug/mL)  
 Cell Selection: Neomycin  
 ORF Nucleotide Sequence: >RR207212 representing NM\_001012063  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGGTGGAGAAGGAGGAGGT**CAGCGCGCGCGCGCGGCATCAGCGAGGAGGAGGCAGCGCAGTATGACC**  
**GACAGATCCGCCTGTGGGACTGGAGGCTCAGAAGCGGCTTCGAGCTTCTCGGGTACTGATTGTCGGCAT**  
**GAAAGACTTGGGGCTGAAATCGCCAAGAACCTTATCCTGGCAGGAGTAAAGGGCTCACCATGCTGGAC**  
**CATGAACAGGTATCTCCAGAAGACCTTGGAGCTCAGTTCTTGATTTCGAAGTGGTCTGTGGCCAAACA**  
**GGCCGAGGCCTCTTTGGAACGAGCCCAGAATCTCAACCCATGGTGGATGTAAGGTGGACACTGAGGA**  
**TATAGAGAAGAAGCCAGAGTCTTCTTACAGAGTTTGTATGCGGTGTGCCTGACTTGCTGCTCAAAGAT**  
**GTCATCATTAAAGTCGACCAGATCTGTCACAGAAATAGCATCAAGTTCTTACAGGAGATGTCTTTGGGT**  
**ACCATGGGTACACCTTTGCAAATCTTGGAGAGCATGAATTTGTAGAAGAGAAAACCAAAGTTACCAAAGT**  
**CAGCCAAGGAGTGAAGATGGACCTGATGCCAAGAGAGCAAAGCTTGACTCATCGGAGACCACCATGGTC**  
**AAAAAGAAAGTGCTTTTCTGCCCTGTAAGGAAGCGCTAGCAGTGGACTGGAGTGGAGAGAAAGCCAGG**  
**CTGCCCTGAAGCGCACTGCCCCAGACTACTTTCTGCTGCAAGTGTGCTGAAGTTCGCACGGATAAAG**  
**GAGAGACCTACTTCTGACAGCTACAGCGAGGATGCCGAGCTGCTGCAGATACGCAATGACGTGTTT**  
**GACTCGCTGGGCTCAGTCTGACCTGCTTCCCGATGACTTTGTGAGTACTGCTTCTCTGAGATGGCCC**  
**CAGTATGTGCTGTGGTTGGAGGAATCTTGGCACAGGAAATGTGAAGGCCTGTCTCAAAGGGACCTCC**  
**TCACAACAACTTCTTCTTCTTCGATGGCATGAAGGGGAGTGAATTGTGGAGTGCCTTGGTCCCCAG**

**ACGGTACGCGCGCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT**  
**ACAAGGATGACGACGATAAGGTTTAA**



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Protein Sequence: >RR207212 representing NM\_001012063  
 Red=Cloning site Green=Tags(s)

MVEKEEVSGGGGISEEEAAQYDRQIRLWGLEAQKRLRASRVLI VGMKGLGAEIAKNLILAGVKGLTMDL  
 HEQVSPEDLGAQFLIRTSVGVQNRAEASLERAQNLNPMVDVKVDTEIEKKPESFFTEF DAVCLTCCSKD  
 VIKVDQICHRNSIKFFTGDFVGYHGYTFANLGEHEFVEEKTKVTKVSQGVEDGPD AKRAKLDSSSETTMV  
 KKKVLFPCPVKEALAVDWSGEKAQAALKRTAPDYFLLQVLLKFRD KGRDPTSDSYSEDAELLLQIRNDVF  
 DSLGVSPDLLPDDFVRYCFSEMAPVCAVVGILAQEI VKALSQRDPHNNFFFDGMKSGSIV ECLGPQ

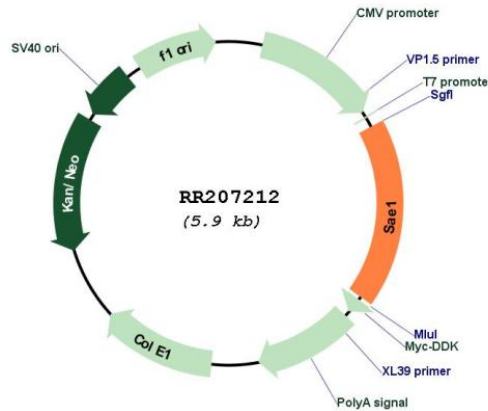
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM\_001012063

ORF Size: 1047 bp

<b>OTI Disclaimer:</b>	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. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_001012063.1</a> , <a href="#">NP_001012063.1</a>
<b>RefSeq Size:</b>	1914 bp
<b>RefSeq ORF:</b>	1050 bp
<b>Locus ID:</b>	308384
<b>UniProt ID:</b>	<a href="#">Q6AXQ0</a>
<b>Cytogenetics:</b>	1q21
<b>MW:</b>	38.5 kDa
<b>Gene Summary:</b>	The heterodimer acts as an E1 ligase for SUMO1, SUMO2, SUMO3, and probably SUMO4. It mediates ATP-dependent activation of SUMO proteins followed by formation of a thioester bond between a SUMO protein and a conserved active site cysteine residue on UBA2/SAE2 (By similarity).[UniProtKB/Swiss-Prot Function]