

# Recombinant Human SUMO1 Activating Enzyme Subunit 1, His-tagged

Cat. No. SAE1-691H Lot. No. (See product label)

## SPECIFICATION

|                         |   |
|-------------------------|---|
| <b>Product Overview</b> | Recombinant Human SUMO1 Activating Enzyme Subunit 1 is produced in <i>E. coli</i> with a N-terminal His-tag. MW= 112 kDa.   |
| <b>Species</b>          | Human   |
| <b>Source</b>           | E.coli  |
| <b>Description</b>      | <p>Ubiquitin activating enzyme E1 is responsible for the first step in ubiquitin-protein isopeptide bond formation and is a critical component for the initiation of in vitro conjugation reactions. E1 activates ubiquitin by first adenylating with ATP the C-terminal glycine carboxyl group of ubiquitin and, thereafter, linking this residue to the sulphhydryl side chain moiety of a cysteine residue in E1 by forming a high energy thiol ester bond and liberating free AMP. There are two active sites within the E1 molecule allowing it to accommodate two ubiquitin molecules at one time, with a new ubiquitin forming an adenylate intermediate as the previous one is transferred to the thiol site. The activated ubiquitin is then transferred to the lysine of target proteins via the E2/E3 conjugation cascade.</p> |
| <b>Formulation</b>      | In 50mM TRIS-hydrochloric acid, containing 1.0mM dithiothreitol.  |
| <b>Storage</b>          | -80°C.  |

## GENE INFORMATION

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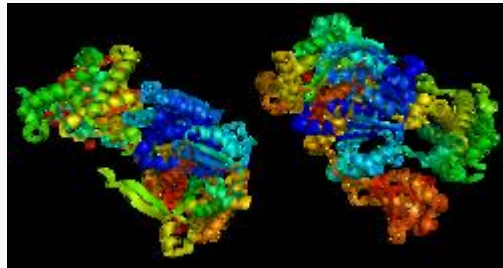
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|----------------------------|--|
| <b>Gene Name</b>           | SAE1 SUMO1 activating enzyme subunit 1 [ Homo sapiens ]  |
| <b>Synonyms</b>            | SAE1; SUMO1 activating enzyme subunit 1; AOS1; SUA1; UBLE1A; FLJ3091; HSPC140;AOS1, FLJ3091, HSPC140; SUA1; UBLE1A; SUMO-1 activating enzyme E1 N subunit; SUMO-1 activating enzyme subunit 1; SUMO-activating enzyme subunit 1; activator of SUMO1; sentrin/SUMO-activating protein AOS1; ubiquitin-like 1-activating enzyme E1A; ubiquitin-like protein SUMO-1 activating enzyme |
| <b>Gene ID</b>             | 10055  |
| <b>mRNA Refseq</b>         | NM_001145713   |
| <b>Protein Refseq</b>      | NP_001139185   |
| <b>MIM</b>                 | 613294   |
| <b>UniProt ID</b>          | Q9UBE0   |
| <b>Chromosome Location</b> | 19q13.32   |
| <b>Pathway</b>             | Ubiquitin mediated proteolysis   |
| <b>Function</b>            | ATP-dependent protein binding; enzyme activator activity; ligase activity; protein C-terminus binding; protein heterodimerization activity; ubiquitin activating enzyme activity   |

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