

Recombinant Human SUMO1 Activating Enzyme Subunit 1, His-tagged

Cat. No. SAE1-59H **Lot. No.** (See product label)

SPECIFICATION

Product Overview

Recombinant human SAE1 protein, fused to His-T7-tag at N-terminus, was expressed in *E. coli* and purified by using conventional chromatography techniques.

Species

Human

Source

E. coli

Description

SAE1, also known as AOS1, belongs to the ubiquitin-activating E1 family of proteins and plays an important role in the first step of the UBL1 conjugation pathway. Proteins conjugated to Ub are marked for progressive degradation by the 26S Proteasome. SAE1, which is a dimeric enzyme, functions as a UBL1 E1 ligase mediating the ATP-dependent activation of UBL1. This protein can bind with UBLE1A and UBLE1B to form a heterodimer which can bind UBL1.

Sequences

MHHHHHMAS MTGGQQMGRD LYDDDDKDRW GSMVEKEEAG GGISEEEAAQ
 YDRQIRLWGL EAQKRLRASR VLLVGLKGLG AEIAKNLILA GVKGLTMLDH
 EQVTPEDPGA QFLIRTGSVG RNRAEASLER AQNLNPMVDV KVDTEDIEKK
 PESFFTQFDA VCLTCCSRDV IVKVDQICHK NSIKFFTGDV FGYHGYTFAN
 LGEHEFVEEK TKVAKVSQGV EDGPDTKRAK LDSSETTMVK KKVVFPCVKE
 ALEVDWSSEK AKAALKRTTS DYFLLQVLLK FRTDKGRDPS SDTYEEDSEL
 LLQIRNDVLD SLGISPDLLP EDFVRYCFSE MAPVCAVGG ILAQEIVKAL
 SQRDPPHNNF FFFDGMKGNG IVECLGPK.

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Molecular Weight	42.2 kDa (378aa) confirmed by MALDI-TOF.
Form	Liquid. In 20 mM Tris-HCl buffer (pH8.0) containing 1mM DTT, 10% glycerol.
Purity	> 90% by SDS – PAGE.
Concentration	1 mg/ml (determined by Bradford assay).
Storage	Can be stored at +4°C short term (1-2 weeks). For long term storage, aliquot and store at -20°C or -70°C. Avoid repeated freezing and thawing cycles.

GENE INFORMATION

Gene Name	SAE1 SUMO1 activating enzyme subunit 1 [Homo sapiens]
Synonyms	SAE1; SUMO1 activating enzyme subunit 1; 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; AOS1; FLJ3091; HSPC140
Gene ID	10055
mRNA Refseq	NM_001145713
Protein Refseq	NP_001139185
MIM	613294
UniProt ID	Q9UBE0

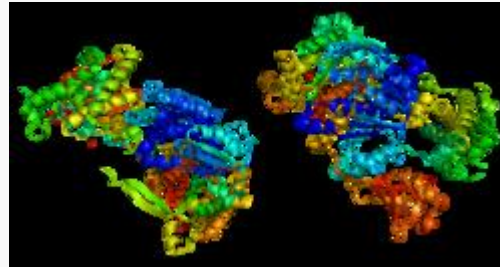
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Chromosome Location	19q13.32
Pathway	Ubiquitin mediated proteolysis
Function	ATP-dependent protein binding; contributes_to SUMO activating enzyme activity; enzyme activator activity; ligase activity; protein heterodimerization activity; protein binding; ubiquitin activating enzyme activity

PDB rendering based on 1y8q.



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