
Product Data Sheet

Product Name: SAE1 Human
 Cat. No.: GP22236
 Batch No.: 1

Product Data

Purity	>98%	Source	Escherichia Coli.
Physical Appearance	solid	Shipping Condition	Shipped with Ice Packs.
Synonyms	AOS1; HSPC140; SUA1; UBLE1A; SAE1; SUMO1 Activating Enzyme Subunit 1; FLJ3091.		
Amino Acid Sequence	MHHHHHHMAS MTGGQQMGRD LYDDDDKDRW GSMVEKEEAG GGISEEEAAQ YDRQIRLWGL EAQKRLRASR VLLVGLKGLG AEIAKNLILA GVKGLTMLDH EQVTPEDPGA QFLIRTGSVG RNRAEASLER AQNLNPMVDV KVDTEIEKK PESFFTQFDA VCLTCCSRDV IVKVDQICHK NSIKFFTGDV FGYHGYTFAN LGEHEFVEEK TKVAKVSQGV EDGPDTKRAK LDSSETTMVK KKVVFCPVKE ALEVDWSSEK AKAALKRTTS DYFLLQVLLK FRTDKGRDPS SDTYEEDSEL LLQIRNDVLD SLGISPDLLP EDFVRYCFSE MAPVCAVGG ILAQEIVKAL SQRDPPHNNF FFFDGMKGNG IVECLGPK.		
Formulation	SAE1 Human solution containing 20mM Tris pH-8, 1mM DTT & 10% glycerol.		

Introduction

SAE1 is part of the ubiquitin-activating E1 family of proteins and participates in the significant first step of the UBL1 conjugation pathway. Proteins conjugated to Ub are marked for progressive degradation by the 26S Proteasome. SAE1 acts as a UBL1 E1 ligase mediating the ATP-dependent activation of UBL1. SAE1 binds with UBLE1A and UBLE1B to form a heterodimer which can bind UBL1. SAE1 is a dimeric enzyme that takes part as a E1 ligase for SUMO1, SUMO2, SUMO3, and probably SUMO4. SAE1 regulates ATP-dependent activation of SUMO proteins and formation of a thioester with a conserved cysteine residue on SAE2.

Stability

Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer

Caution: Product has not been fully validated for medical applications. For research use only.

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periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Avoid multiple freeze-thaw cycles.

Background

SAE1 Recombinant Human produced in E.Coli is a single, non-glycosylated polypeptide chain containing 378 amino acids (1-346 a.a.) and having a molecular mass of 42.2 kDa. The SAE1 is fused to 32 amino acid T7-Tag at N-terminus and purified by proprietary chromatographic techniques.

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