



SHANGHAI GENOMICS

Recombinant Human SUMO-1 Activating Enzyme Subunit 1

rHuSAE1

Catalog number: 3132-13

Specifications and Use

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|-----------------------|--------------------------------------------------------------|
| Source | ● Sf9 insect cell |
| Molecular Mass | ● 42 kDa. |
| Purity | ● ≥ 85% as determined by SDS-PAGE |
| Tag | ● 6 x His |
| Formulation | ● 20mM Tris-HCl, 150mM NaCl, 0.5mM EDTA, pH7.9, 10 %glycerol |
| Stability | ● Store at -80°C. Avoid repeated freezing and thawing |
| Usage | ● FOR RESEARCH USE ONLY. NOT FOR HUMAN USE. |

Human SAE1

Conjugation of the ubiquitin-like modifier SUMO requires the activities of the heterodimeric E1 (SAE1/SAE2) and the UbCH9 E2 enzyme. The dimeric activating enzyme utilizes ATP to adenylate the C-terminal glycine residue of SUMO proteins (SUMO-1, SUMO-2 and SUMO-3), forming a high-energy thiolester bond with the cysteine residue of SAE2 and the release of AMP and PPi. The second step is the trans-esterification reaction whereby SUMO-1 is transferred to Cys⁹³ of UbCH9.

Protein Sequence:

HHHHHHHDYDIPTTENLYFQAAMDPEFRANPAMVEKEEAGGGISEEEAAQYDRQIRLWGLEAQKRLRA
SRVLLVGLKGLGAEIAKNLILAGVKGLTMDHEQVTPEDPGAQFLIRTGSVGRNRAEASLERAQNLNP
MVDVKVDTEIEKKPESFFTQFQDAVCLTCCSRDVIVKVDQICHKNSIKFFTGDVFGYHGYTFANLGEHE
FVEEKTAKVAKVSQGVEDGPDTKRAKLDSETTMVKKKVVFCPVKEALEVDWSSEKAKAALKRTTSDY
FLLQVLLKFRDQKGRDPSSDYEEDSELLLQIRNDVLDVSLGISPDLLPEDFVRYCFSEMAPVCAVVGGI
LAQEIVKALSQRDPPHNNFFFDGMKGNNGIVECLGPK