# SAE1 Peptide - N-Terminal Region Blocking Peptide

## PRODUCT OVERVIEW

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| **Product Name** | SAE1, Blocking Peptide |
| **Full Product Name** | SAE1 Peptide - N-terminal region |
| **Product Gene Name** | SAE1 blocking peptide |
| **Product Synonym Gene Name** | AOS1; FLJ3091; HSPC140; SUA1; UBLE1A |
| **Sequence** | VTPEDPGAQF LIRTGSVGRN RAEASLERAQ NLNPMVDVKV DTEDIEKKPE |
| **Species Reactivity** | Human |
| **Form/Format** | Lyophilized powder |
| **Preparation and Storage** | Add 100ul of sterile PBS. Final peptide concentration is 1 mg/ml in PBS. For longer periods of storage, store at -20 degree C. Avoid repeat freeze-thaw cycles. |
| **Antibody/Peptide Pairs** | SAE1 peptide (MBS3235548) is used for blocking the activity of SAE1 antibody (MBS3210593) |
| **Molecular Weight** | 38kDa |
| **OMIM** | 613294 |
| **Product Categories/Family for SAE1 blocking peptide** | Peptide |
| **Applications Tested/Suitable for SAE1 blocking peptide** | Western Blot (WB) |
| **Related Product Information for SAE1 blocking peptide** | This is a synthetic peptide designed for use in combination with anti-SAE1 Antibody, made<br><br>Target Description: Posttranslational modification of proteins by the addition of the small protein SUMO (see SUMO1; MIM 601912), or sumoylation, regulates protein structure and intracellular localization. SAE1 and UBA2 (MIM 613295) form a heterodimer that functions as a SUMO-activating enzyme for the sumoylation of proteins (Okuma et al., 1999 [PubMed 9920803]). |
| **Other Notes** | Small volumes of SAE1 blocking peptide vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply. |
| **Searchable Terms for SAE1 purchase** | MBS3235548 is a blocking peptide targeting SAE1. Also known as SAE1 Peptide - N-terminal region. Reactive in Human. |

## ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for SAE1. It may not necessarily be applicable to this product.

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| **NCBI GI #** | 4885585 |
| **NCBI GeneID** | 10055 |
| **NCBI Accession #** | NP_005491 |
| **UniProt Primary Accession #** | Q9UBE0 |
| **UniProt Related Accession #** | Q9UBE0 |
| **GenBank Nucleotide #** | NM_005500 |
| **NCBI Official Full Name** | SUMO-activating enzyme subunit 1 isoform a |

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| **NCBI Official Synonym Full Names** | SUMO1 activating enzyme subunit 1 |
| **NCBI Official Symbol** | SAE1 |
| **NCBI Official Synonym Symbols** | AOS1; SUA1; UBLE1A; HSPC140 |
| **UniProt Protein Name** | SUMO-activating enzyme subunit 1 |
| **UniProt Synonym Protein Names** | Ubiquitin-like 1-activating enzyme E1A |
| **Protein Family** | SUMO-activating enzyme |
| **UniProt Gene Name** | SAE1 |
| **UniProt Synonym Gene Names** | AOS1; SUA1; UBLE1A |
| **UniProt Entry Name** | SAE1_HUMAN |
| **NCBI Protein Information** | SUMO-activating enzyme subunit 1 |
| **NCBI Summary for SAE1** | Posttranslational modification of proteins by the addition of the small protein SUMO (see SUMO1; MIM 601912), or sumoylation, regulates protein structure and intracellular localization. SAE1 and UBA2 (MIM 613295) form a heterodimer that functions as a SUMO-activating enzyme for the sumoylation of proteins (Okuma et al., 1999 [PubMed 9920803]).[supplied by OMIM, Mar 2010] |
| **UniProt Comments for SAE1** | UBLE1A: The heterodimer acts as a 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. Belongs to the ubiquitin-activating E1 family.<br><br>Protein type: EC 6.3.2.19; Ubiquitin ligase; Ubiquitin conjugating system<br><br>Chromosomal Location of Human Ortholog: 19q13.32<br><br>Cellular Component: nucleoplasm; intracellular membrane-bound organelle; cytosol; nucleus<br><br>Molecular Function: protein C-terminus binding; ATP-dependent protein binding; SUMO activating enzyme activity; protein binding; protein heterodimerization activity; enzyme activator activity; ubiquitin activating enzyme activity<br><br>Biological Process: positive regulation of catalytic activity; cellular protein metabolic process; protein sumoylation; regulation of mitotic cell cycle; protein ubiquitination; SMT3-dependent protein catabolic process; post-translational protein modification |
| **Research Articles on SAE1** | **1.** the expression of SENP8, SAE1, PIAS1, PIAS2 and ZMIZ1 is deregulated in the majority of PTC tissues, likely contributing to the PTC phenotype. |
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