Recombinant Human SUMO1

Catalog No: C175

Description	Recombinant Human Small Ubiquitin-Related Modifier 1 is produced by our E.coli expression system and the target gene encoding Met1-Val101 is expressed with a 6His tag at the N-terminus.
Expression System	E.coli
Alternative name	Small Ubiquitin-Related Modifier 1; SUMO-1; GAP-Modifying Protein 1; GMP1; SMT3 Homolog 3; Sentrin; Ubiquitin-Homology Domain Protein PIC1; Ubiquitin-Like Protein SMT3C; Smt3C; Ubiquitin-Like Protein UBL1; SUMO1; SMT3C; SMT3H3; UBL1
Accession No.	P63165
Quality Control	Purity: greater than 95% as determined by reducing SDS-PAGE. Endotoxin: less than 0.1 ng/μg (1 EU/μg) as determined by LAL test.
Formulation	Lyophilized from a 0.2 μm filtered solution of 50mM TrisHCl, 100mM NaCl, 1mM DTT, pH 8.5.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100μg/ml. Dissolve the lyophilized protein in distilled water. Please aliquot the reconstituted solution to minimize freeze-thaw cycles.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature listed below.
Storage	Lyophilized protein should be stored at < -20°C, though stable at room temperature for 3 weeks. Reconstituted protein solution can be stored at 4-7°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months. Always centrifuge tubes before opening. Do not mix by vortex or pipetting.
Background	Small Ubiquitin-Related Modifier 1 (SUMO1) is an Ubiquitin-like protein that belongs to the ubiquitin family with SUMO subfamily. It is a family of small, related proteins that can be enzymatically attached to a target protein by a post- translational modification process termed sumoylation. SUMO1 functions in a manner similar to ubiquitin in that It is bound to target proteins as part of a post-translational modification system. This post-translational modification on lysine residues of proteins plays a crucial role in a number of cellular processes such as nuclear transport, DNA replication and repair, mitosis and signal transduction. SUMO1 is involved in a variety of cellular processes, such as nuclear transport, transcriptional regulation, apoptosis, and protein stability. SUMO1 is not active until the last four amino acids of the carboxy-terminus are cleaved off. Polymeric SUMO1 chains are also susceptible to polyubiquitination which functions as a signal for proteasomal degradation of modified proteins and may also regulate a network of genes involved in palate development.

SDS-PAGE