



Recombinant Protein Technical Manual

Recombinant Human SUMO1 Protein (His Tag)

RPES1690

Product Data:

Product SKU: RPES1690

Size: 10µg

Species: Human

Expression host: E. coli

Uniprot: P63165

Protein Information:

Molecular Mass: 13.7 kDa

AP Molecular Mass: 179 kDa

Tag: N-6His

Bio-activity:

Purity: > 90 % as determined by reducing SDS-PAGE.

Endotoxin: < 1.0 EU per µg as determined by the LAL method.

Storage: Lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.

Shipping: This product is provided as lyophilized powder which is shipped with ice packs.

Formulation: Lyophilized from a 0.2 µm filtered solution of 50mM TrisHCl, 100mM NaCl, 1mM DTT, pH 8.5 .

Reconstitution: Please refer to the printed manual for detailed information.

Application:

Synonyms: Small Ubiquitin-Related Modifier 1; SUMO; 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; DAP1; OFC10; SENP2; SMT3

Immunogen Information:

Sequence: Met 1-Val101

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.