# **Recombinant Human SUMO1 Protein (His Tag)**

Catalog Number: PKSH033311



Note: Centrifuge before opening to ensure complete recovery of vial contents.

#### **Description**

Synonyms 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;DAP1;OFC10;SENP2;SMT3

SpeciesHumanExpression HostE.coli

SequenceMet 1-Val101AccessionAAH66306Calculated Molecular Weight13.7 kDaObserved molecular weight17-19 kDaTagN-His

#### **Properties**

**Purity** > 95 % as determined by reducing SDS-PAGE.

**Endotoxin** < 1.0 EU per µg of the protein as determined by the LAL method.

**Storage** Generally, 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 Tris-HCl, 100mM NaCl,

1mM DTT, pH 8.5.

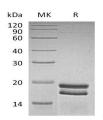
Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as

protectants before lyophilization.

Please refer to the specific buffer information in

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

## **Data**



> 95 % as determined by reducing SDS-PAGE.

## **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

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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.

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