

Recombinant Human SUMO1 Protein (His Tag)

Catalog No. PKSH030730

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

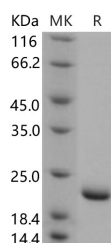
Description

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
Species	Human
Expression Host	E.coli
Sequence	Ser 2-Val 101
Accession	AAH66306.1
Calculated Molecular Weight	12.4 kDa
Tag	N-His
Bioactivity	Measured by its ability to be proteolytically processed by SENP1. > 50% of 1 µg Recombinant Human (rh) SUMO1 is cleaved by < 10 ng of recombinant human SENP.

Properties

Purity	> 90 % as determined by reducing SDS-PAGE.
Endotoxin	Please contact us for more information.
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 sterile 20mM Tris, 500mM NaCl, pH 7.5 Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
Reconstitution	Please refer to the printed manual for detailed information.

Data



> 90 % as determined by reducing SDS-PAGE.

For Research Use Only

Background

Small ubiquitin-like modifier protein (SUMO) modification is a highly dynamic process, catalyzed by SUMO-specific activating (E1), conjugating (E2) and ligating (E3) enzymes, and reversed by a family of SUMO-specific proteases (SENPs). Small ubiquitin-like modifier 1 (SUMO1) is a member of the superfamily of ubiquitin-like proteins. Despite its structural similarity with ubiquitin, SUMO1 does not seem to play any role in protein degradation. SUMO1 plays an important role in modulation of NOX activity required for ROS generation. SUMO1 haploinsufficiency results in cleft lip and palate in animal models. SUMO1 gene variation in human non-syndromic cleft lip with or without cleft palate (NSCLP) development. SUMO-1 may be useful as a novel target for therapy in oral squamous cell carcinoma (SCC) as well as a clinical indicator for tumor recurrence together with Mdm2.

For Research Use Only