# Recombinant Human SUMO1 Protein (His Tag)

**Catalog Number: PKSH030730**

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

## Description

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|---|---|
| **Species** | Human |
| **Source** | E.coli-derived Human SUMO1 protein Ser 2-Val 101, with an N-terminal His |
| **Calculated MW** | 12.4 kDa |
| **Accession** | AAH66306.1 |
| **Bio-activity** | 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

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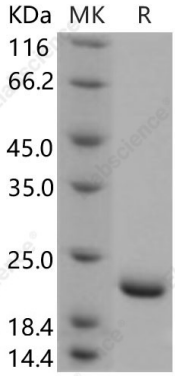
|---|---|
| **Purity** | > 90% as determined by reducing SDS-PAGE. |
| **Endotoxin** | Please contact us for more information. |
| **Storage** | Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. 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 20 mM Tris, 500 mM NaCl, pH 7.5<br>Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.<br>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.

## 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.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