

SUMO1 active protein

SUMO1 Protein, Human, Recombinant (His Tag)

CATALOG #
AAA258013

HOST
E Coli

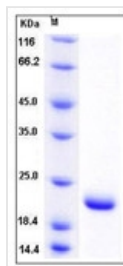
PRODUCT SYNONYMS

SUMO1; SUMO1 Protein; Human; Recombinant (His Tag); Human SUMO1/SUMO-1 Protein (His Tag); DAP1 Protein; GMP1 Protein; OFC10 Protein; PIC1 Protein; SENP2 Protein; SMT3 Protein; SMT3C Protein; SMT3H3 Protein; UBL1 Protein; small ubiquitin-like modifier 1; SUMO1 active protein

PRODUCT SPECIFICATIONS

Host	E Coli
Purity/Purification	>90% as determined by SDS-PAGE
Form/Format	Lyophilized from sterile 20mM Tris, 500mM NaCl, pH7.5., 5% trehalose, 5% mannitol and 0.01% Tween-80
Source	Human
Stability	Samples are stable for up to twelve months from date of receipt at -70°C
Bio Activity	Measured by its ability to be proteolytically processed by SENP1. >50% of 1 ug Recombinant Human (rh) SUMO1 is cleaved by <10 ng of recombinant human SENP.
Predicted N Terminal	Met
Tag	N-His
Protein Construction	A DNA sequence encoding the human SUMO1 (AAH66306.1)(Ser 2-Val 101) was expressed, with a polyhistide tag at the N-terminus.
Reconstitution	It is recommended that sterile water (200ul) be added to the vial to prepare a stock solution of 0.25 mg/ml. Concentration is measured by UV.
Preparation and Storage	Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage. Avoid repeated freeze-thaw cycles.

IMAGES



SDS-PAGE

ADDITIONAL INFORMATION

Related Product Information for SUMO1 active protein	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.
Product Categories/Family for SUMO1 active protein	NF-kB (NFkB) Pathway
References	Kim HJ, et al. (2011) SUMO1 attenuates stress-induced ROS generation by inhibiting NADPH oxidase 2. Biochem Biophys Res Commun. 410(3): 555-62.Zuo Y, et al. (2009) Small ubiquitin-like modifier protein-specific protease 1 and prostate cancer. Asian J Androl. 11(1): 36-8.Song T, et al. (2008) SUMO1 polymorphisms are associated with non-syndromic cleft lip with or without cleft palate. Biochem Biophys Res Commun. 377(4): 1265-8.Katayama A, et al. (2007) Overexpression of small ubiquitin-related modifier-1 and sumoylated Mdm2 in oral squamous cell carcinoma: possible involvement in tumor proliferation and prognosis. Int J Oncol. 31(3): 517-24.

NCBI AND UNIPROT INFORMATION

NCBI GI #	42490984
NCBI GeneID	7341
Molecular Weight	The recombinant human SUMO1 consisting of 107 amino acids and has a calculated molecular mass of 12.4 kDa. It migrates as an 22 kDa band in SDS-PAGE under reducing conditions as predicted.
NCBI Official Full Name	SMT3 suppressor of mif two 3 homolog 1 (S. cerevisiae)
NCBI Official Synonym Full Names	small ubiquitin-like modifier 1
NCBI Official Symbol	SUMO1
NCBI Official Synonym Symbols	DAP1; GMP1; PIC1; SMT3; UBL1; OFC10; SENP2; SMT3C; SMT3H3
NCBI Protein Information	small ubiquitin-related modifier 1

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.