SUMO3 Protein, Human (HEK293, His)

Cat. No.:	HY-P71346
Synonyms:	Small ubiquitin-related modifier 3; SUMO-3; SMT3 homolog 1; SUMO-2; Ubiquitin-like protein SMT3A; Smt3A
Species:	Human
Source:	HEK293
Accession:	P55854 (S2-G92)
Gene ID:	6612
Molecular Weight:	Approximately 21.0 kDa

PROPERTIES

AA Sequence	S E E K P K E G V K T E N D H I N L K V A G Q D G S V V Q F K I K R H T P L S K L M K A Y C E R Q G L S M R Q I R F F R F D G Q P I N E T D T P A Q L E M E D E D T I D V F Q Q Q T G G
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 μm filtered solution of 20 mM Citrate, 10% Trehalose, 3% Dextran-70, 50 mM NaCl, 0.05% Tween 80, pH 3.5.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH_2O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US;may vary elsewhere.

DESCRIPTION

Background	SUMO3, a ubiquitin-like protein, exhibits versatile functionality by being covalently attached to target lysines, either as a monomer or forming lysine-linked polymers. Unlike ubiquitin, SUMO3 does not seem to participate in protein degradation; instead, it potentially acts as an antagonist of ubiquitin in the degradation process. Its involvement spans various cellular processes, including nuclear transport, DNA replication and repair, mitosis, and signal transduction. The covalent attachment of SUMO3 to its substrates necessitates prior activation by the E1 complex SAE1-SAE2 and linkage to the E2 enzyme UBE2I, with promotion facilitated by E3 ligases such as PIAS1-4, RANBP2, or CBX4. SUMO3 is implicated in the regulation of the sumoylation status of SETX and engages in interactions with various proteins, including BMAL1, USP25 (via its SIM domain), SAE2, and UBE2I. Notably, its interaction with USP25 leads to the sumoylation of USP25, inhibiting its

	ubiquitin hydrolyzing activity.

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com
Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA