Recombinant SUMO3 protein (His tag)

Catalog Number	537851
Synonyms	SUMO-3; SMT3 homolog 1; SUMO-2; Ubiquitin-like protein SMT3A; Smt3A
Species	Human
Expression System	E. coli
Accession	P55854
Molecular Weight	Predictes a molecular mass of 12.18 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 13 kDa band.

Product Information

Sequence Region	1-92
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>86%, by SDS-PAGE with Coomassie Brilliant Blue staining.
Endotoxin	Not tested.
Activity	Not tested.
Stability	Samples are stable for up to twelve months from date of receipt at -70℃
Protein Construction	DNA encoding 1-92 aa (P55854) were fused with 6His tag.

Storage & Handling

Reconstitution	Reconstitute at 0.25 μg/μl in sterile water for short-term storage. Reconstitution with 50% glycerol solution is recommended for longer term storage (see Stability and Storage for more details). If a different concentration is needed for your purposes please adjust the reconstitution volume as required (please note: the ion concentration of the final solution will vary according to the volume used). Note: Centrifuge vial before opening. When reconstituting, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution.
Storage	Store it under sterile conditions at -20℃ to -80℃. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Shipping	In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise.

Description

Description	Recombinant Human SUMO-3 (1-92) Fragment: A high-purity, functional fragment encompassing the complete ubiquitin-like domain of Small ubiquitin-related modifier 3 (SUMO-3). This product is an essential tool for investigating sumoylation mechanisms, protein modification studies, and cellular process regulation without the complexities of the full-length protein. SUMO-3 is a ubiquitin-like protein that can be covalently attached to target lysines as a monomer or polymer, functioning as an antagonist of ubiquitin in degradation processes rather than promoting protein breakdown. It plays critical roles in nuclear transport, DNA replication and repair, mitosis, and signal transduction. Sumoylation requires activation by the E1 complex SAE1-SAE2, linkage to the E2 enzyme UBE2I, and can be enhanced by E3 ligases such as PIAS1-4, RANBP2, or CBX4. SUMO-3 also regulates the sumoylation status of SETX and is localized in the cytoplasm and nucleus, including PML bodies, highlighting its importance in diverse cellular compartments and functions.