Recombinant SUMO2 protein (His tag)

Catalog Number	537889
Synonyms	SUMO-2; HSMT3; SMT3 homolog 2; SUMO-3; Sentrin-2; Ubiquitin-like protein SMT3B; Smt3B
Species	Human
Expression System	E. coli
Accession	P61956
Molecular Weight	Predictes a molecular mass of 12.26 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 13 kDa band.

Product Information

Sequence Region	1-93
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>88%, 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 1-93 aa (P61956) 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-2 (1-93) is a high-purity, stable protein fragment designed for structural and biochemical studies. This product captures the essential ubiquitin-like domain of SUMO-2, enabling researchers to investigate its critical roles in protein modification, cellular signaling, and regulatory pathways. Small ubiquitin-related modifier 2 (SUMO-2) is a ubiquitin-like protein that plays a vital role in post-translational modification through covalent attachment to target proteins. This process, known as sumoylation, requires activation by the E1 complex SAE1-SAE2 and linkage to the E2 enzyme UBE2I, often facilitated by E3 ligases such as PIAS1-4 or RANBP2. SUMO-2 modification regulates numerous cellular processes, including nuclear transport, DNA replication and repair, mitosis, and signal transduction. Additionally, polymeric SUMO-2 chains can be polyubiquitinated, marking modified proteins for proteasomal degradation. SUMO-2 is primarily localized in the nucleus, particularly within PML bodies, and has been implicated in modulating the sumoylation status of proteins like SETX. The provided fragment (residues 1-93) represents a stable, soluble unit ideal for exploring SUMO-2's functional mechanisms in vitro.