Recombinant SPT2 protein (His tag)

Catalog Number	542875
Synonyms	Protein KU002155; SPT2 domain-containing protein 1
Species	Human
Expression System	E. coli
Accession	Q68D10
Molecular Weight	Predictes a molecular mass of 11.96 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 12 kDa band.

Product Information

Sequence Region	1-89
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 1-89 aa (Q68D10) 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 SPTY2D1 (1-89) is a high-purity, stable fragment of Protein SPT2 homolog, designed for structural and biochemical studies. This 89-amino acid fragment retains solubility and stability, making it ideal for investigating histone chaperone mechanisms and chromatin dynamics in vitro. The full-length Protein SPT2 homolog (SPTY2D1) functions as a histone chaperone that stabilizes pre-existing histone tetramers and regulates replication-independent histone exchange on chromatin. It is essential for proper chromatin refolding in transcribed gene regions and suppresses spurious transcription. The protein binds both DNA and histones, promotes nucleosome assembly in vitro, and facilitates the formation of histone H3-H4 tetrameric complexes. It also modulates RNA polymerase I-mediated transcription and exhibits a preference for branched DNA structures, such as Y-form and Holliday junctions. Located in the nucleus and nucleolus, SPTY2D1 plays a critical role in maintaining chromatin integrity and transcriptional regulation.