Recombinant SMCA1 protein (His tag)

Catalog Number	537656
Synonyms	SMARCA1; SWI/SNF-related matrix-associated actin-dependent regulator of chromatin A1; Global transcription activator SNF2L1; Nucleosome-remodeling factor subunit SNF2L; SNF2L; SNF2 related chromatin remodeling ATPase 1
Species	Human
Expression System	E. coli
Accession	P28370
Molecular Weight	Predictes a molecular mass of 34.89 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 39 kDa band.

Product Information

Sequence Region	765-1042
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>85%, 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 765-1042 aa (P28370) 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	Introducing the recombinant SMARCA1 protein fragment (residues 765-1042), a high-purity tool designed for investigating chromatin remodeling mechanisms. This fragment encompasses the critical SANT 1 and SANT 2 domains, enabling focused studies on nucleosome interactions and ATPase regulation in epigenetic research. SMARCA1 (SWI/SNF-related matrix-associated actin-dependent regulator of chromatin subfamily A member 1) is a nuclear chromatin-remodeling ATPase that plays fundamental roles in DNA-templated processes. As the catalytic subunit of ISWI complexes, it exhibits substrate-dependent ATPase activity and orchestrates nucleosome positioning through histone octamer sliding, facilitating DNA replication, transcription, and repair. The full-length protein localizes to the nucleus and chromosomes, where it maintains genomic stability by promoting nucleosome assembly during replication. The characterized fragment (765-1042) preserves essential functional domains while providing a targeted approach for dissecting specific chromatin remodeling activities without interference from regulatory regions present in the full-length protein.