Recombinant PWP2B protein (His tag)

Catalog Number	540516
Species	Human
Expression System	E. coli
Accession	Q6NUJ5
Molecular Weight	Predictes a molecular mass of 15.76 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 16 kDa band.

Product Information

Sequence Region	467-590
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 467-590 aa (Q6NUJ5) 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 PWWP2B Fragment (467-590) is a high-purity protein designed for studying the chromatin-binding functions of the PWWP domain. This fragment fully encompasses the PWWP domain (residues 490-550), making it an ideal tool for investigating domain-specific interactions with histone modifications such as H3K36me3 and H2A.Z, and its role in regulating histone acetylation in transcriptional processes. The full-length PWWP domain-containing protein 2B (PWWP2B) is a chromatin-binding adapter protein that links specific nucleosome components, including H3K36me3 or H2A.Z, to chromatin-modifying complexes. It plays a critical role in modulating histone acetylation levels at actively transcribed genes, thereby facilitating transcriptional elongation. PWWP2B competes with components like CHD4 and MBD3 to form subcomplexes with MTA1, recruiting histone deacetylases (HDACs) to promoters and promoting deacetylation of H3K27 and H2A.Z. Additionally, it negatively regulates brown adipocyte thermogenesis by stabilizing HDAC1 at the UCP1 promoter, repressing UCP1 expression. These functions underscore its significance in epigenetic regulation and gene expression control.