Recombinant DBP protein (His tag)

Catalog Number	547232
Synonyms	Albumin D box-binding protein; Albumin D-element-binding protein; Tax-responsive enhancer element-binding protein 302; TaxREB302
Species	Human
Expression System	E. coli
Accession	Q10586
Molecular Weight	Predictes a molecular mass of 17.26 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 19 kDa band.

Product Information

Sequence Region	193-325
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 193-325 aa (Q10586) 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 human D site-binding protein (DBP) fragment (residues 193-325), a high-purity protein designed to encompass the complete bZIP functional domain. This product is an essential tool for researchers studying transcriptional regulation, circadian clock outputs, and DNA-binding mechanisms, providing a targeted approach to investigate domain-specific functions in gene expression control. The full-length D site-binding protein (DBP), also known as Albumin D box-binding protein or Tax-responsive enhancer element-binding protein 302, functions as a transcriptional activator that specifically recognizes and binds to the DNA sequence 5'-RTTAYGTAAY-3' in promoters of genes including albumin, CYP2A4, and CYP2A5. While not essential for circadian rhythm generation itself, DBP modulates important clock output genes and may serve as a direct target for regulation by the circadian pacemaker component CLOCK, potentially influencing circadian period and sleep regulation. This nuclear-localized protein represents a key regulatory component in gene expression networks, connecting circadian timing mechanisms with transcriptional outputs in human systems.