Recombinant TXD11 protein (His tag)

Catalog Number	542932
Synonyms	EF-hand-binding protein 1
Species	Human
Expression System	E. coli
Accession	Q6PKC3
Molecular Weight	Predictes a molecular mass of 40.56 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 41 kDa band.

Product Information

Sequence Region	595-931
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>87%, 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 595-931 aa (Q6PKC3) 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 Thioredoxin domain-containing protein 11 (TXNDC11) fragment (residues 595-931) is a high-purity protein designed for studying redox regulation and protein folding mechanisms. This fragment fully encompasses the functional Thioredoxin 2 domain, making it an ideal tool for investigating domain-specific functions in cellular redox processes. Thioredoxin domain-containing protein 11 (EF-hand-binding protein 1), encoded by the TXNDC11 gene, functions as a redox regulator involved in DUOX protein folding. While it interacts with DUOX1 and DUOX2 as part of the thyroid H_2O_2-generating multiprotein complex, it alone is insufficient to support H_2O_2 generation by these dual oxidases. The protein localizes to the endoplasmic reticulum membrane as a single-pass membrane protein, where it participates in oxidative protein folding and cellular redox homeostasis processes crucial for thyroid hormone synthesis.