Recombinant TXND3 protein (His tag)

Catalog Number	540737
Synonyms	3'-5' exonuclease NME8; NM23-H8; NME/NM23 family member 8; Spermatid-specific thioredoxin-2; Sptrx-2
Species	Human
Expression System	E. coli
Accession	Q8N427
Molecular Weight	Predictes a molecular mass of 27.64 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 30 kDa band.

Product Information

Sequence Region	1-229
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>90%, 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 1-229 aa (Q8N427) 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 3 (NME8) Fragment (aa 1-229) is a high-purity protein designed for studying the thioredoxin domain's role in sperm maturation and DNA repair mechanisms. This fragment encompasses the complete thioredoxin functional domain, making it an ideal tool for investigating domain-specific interactions and enzymatic activities in reproductive biology and genomic stability research. Thioredoxin domain-containing protein 3 (NME8) is a human protein crucial during the final stages of sperm tail maturation in the testis and/or epididymis, where disulfide bonding of fibrous sheath proteins occurs. Although it lacks nucleoside diphosphate kinase and disulfide-reducing activities in vitro, it exhibits 3'-5' exonuclease activity with preference for single-stranded DNA, suggesting roles in DNA proofreading and repair processes. The protein is localized in the cytoplasm, supporting its involvement in intracellular nucleic acid quality control and spermatogenic functions.