Recombinant TDRD6 protein (His tag)

Catalog Number	548656
Synonyms	Antigen NY-CO-45; Cancer/testis antigen 41.2; CT41.2
Species	Human
Expression System	E. coli
Accession	O60522
Molecular Weight	Predictes a molecular mass of 49.65 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 50 kDa band.

Product Information

Sequence Region	1-436
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 1-436 aa (O60522) 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 Tudor domain-containing protein 6 (TDRD6) fragment (amino acids 1-436) from Homo sapiens, encompassing the full Tudor 1 and Tudor 2 domains. This high-purity protein is an essential tool for investigating germ cell development mechanisms, RNA metabolism, and spliceosome maturation in reproductive biology and cancer research. Tudor domain-containing protein 6 (TDRD6), also known as Cancer/testis antigen 41.2, plays a critical role in germ cell development through formation of specialized cytoplasmic structures including chromatoid bodies during spermiogenesis and Balbiani bodies during oogenesis. The protein localizes to cytoplasmic processing bodies where it facilitates RNA-dependent helicase UPF1 recruitment, enabling mRNA degradation via the nonsense-mediated decay pathway. Additionally, TDRD6 contributes to spliceosome maturation and proper miRNA expression through interactions with arginine methyltransferase PRMT5 and symmetrically dimethylated SNRPB. Its presence in chromatoid bodies alongside DDX4, PIWIL1, and other Tudor domain proteins underscores its significance in post-transcriptional regulation during gametogenesis.