Recombinant DNJA3 protein (His tag)

Catalog Number	540981
Synonyms	DnaJ protein Tid-1; hTid-1; Hepatocellular carcinoma-associated antigen 57; Tumorous imaginal discs protein Tid56 homolog
Species	Human
Expression System	E. coli
Accession	Q96EY1
Molecular Weight	Predictes a molecular mass of 27.35 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 27 kDa band.

Product Information

Sequence Region	208-441
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>89%, 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 208-441 aa (Q96EY1) 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	This product is a recombinant fragment of the human DnaJ homolog subfamily A member 3 (DNAJA3), also known as hTid-1, spanning residues 208-441. It has been computationally designed for high stability and solubility, making it an ideal tool for structural studies and biochemical assays related to mitochondrial apoptosis regulation and signal transduction pathways. The full-length DnaJ homolog subfamily A member 3 (DNAJA3) is a mitochondrial protein that plays a critical role in modulating apoptotic signal transduction within the mitochondrial matrix. It influences cytochrome C release and caspase 3 activation, with isoform-specific effects: isoform 1 promotes apoptosis induced by TNF and DNA-damaging agents, while isoform 2 suppresses apoptosis. Additionally, DNAJA3 can regulate IFN-gamma-mediated transcriptional activity, and isoform 2 may contribute to neuromuscular junction development via the MUSK signaling pathway. The protein is primarily localized to the mitochondrial matrix and cytosol, and it can be recruited to the postsynaptic cell membrane at the neuromuscular junction through interaction with MUSK, highlighting its diverse functional roles in cellular processes.