Recombinant DNAI3 protein (His tag)

Catalog Number	545384
Synonyms	Testis development protein NYD-SP29; WD repeat-containing protein 63
Species	Human
Expression System	E. coli
Accession	Q8IWG1
Molecular Weight	Predictes a molecular mass of 38.75 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 41 kDa band.

Product Information

Sequence Region	261-586
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 261-586 aa (Q8IWG1) 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 recombinant protein is a 326-amino acid fragment (residues 261-586) of human Dynein axonemal intermediate chain 3 (DNAI3), also known as Testis development protein NYD-SP29. It represents a stable, soluble unit ideal for investigating the protein's role in cell migration regulation, cilia function, and mesenchymal stem cell osteogenesis. The full-length Dynein axonemal intermediate chain 3, encoded by the DNAI3 gene, functions as a negative regulator of cell migration, invasion, and metastasis downstream of p53/TP53 by inhibiting Arp2/3 complex-mediated actin polymerization. It is also associated with the axonemal dynein complex, potentially regulating cilia function, and may contribute to osteogenesis in dental tissue-derived mesenchymal stem cells. The protein is localized in the cytoplasm, supporting its role in cytoskeletal dynamics and intracellular signaling pathways relevant to cellular motility and differentiation.