Recombinant DC2I2 protein (His tag)

Catalog Number	545671
Synonyms	Dynein 2 intermediate chain 2; WD repeat-containing protein 34
Species	Human
Expression System	E. coli
Accession	Q96EX3
Molecular Weight	Predictes a molecular mass of 49.31 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 49 kDa band.

Product Information

Sequence Region	103-536
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 103-536 aa (Q96EX3) 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 Cytoplasmic Dynein 2 Intermediate Chain 2 (DYNC2I2) Fragment (aa 103-536) - A stable, soluble protein fragment ideal for studying ciliary transport mechanisms and intracellular signaling pathways. This carefully selected 434-amino acid fragment maintains structural integrity while providing researchers with a functional tool for biochemical and structural analyses. Cytoplasmic dynein 2 intermediate chain 2 (DYNC2I2), also known as WD repeat-containing protein 34, serves as a critical non-catalytic accessory component of the cytoplasmic dynein 2 complex. This motor protein complex drives retrograde cargo transport along microtubules within cilia and flagella through the intraflagellar transport system. DYNC2I2 plays an essential role in ciliogenesis and maintaining functional transition zones, making it crucial for proper ciliary protein trafficking. Additionally, the protein functions as a negative regulator of Toll-like and IL-1R receptor signaling pathways by inhibiting MAP3K7-induced NF-kappa-B activation and phosphorylation. The protein localizes to multiple cellular compartments including the cytoplasm, cilium basal body, cilium axoneme, centrosome, and cellular projections such as cilia and filopodia, with particular concentration around centrioles and basal bodies.