Recombinant DC1I2 protein (His tag)

Catalog Number	547261
Synonyms	Cytoplasmic dynein intermediate chain 2; Dynein intermediate chain 2, cytosolic; DH IC-2
Species	Human
Expression System	E. coli
Accession	Q13409
Molecular Weight	Predictes a molecular mass of 49.70 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 51 kDa band.

Product Information

Sequence Region	209-638
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 209-638 aa (Q13409) 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 1 Intermediate Chain 2 (DYNC1I2) Fragment (aa 209-638) - A stable, soluble protein fragment ideal for structural and biochemical studies of cytoplasmic dynein function and intracellular transport mechanisms. Cytoplasmic dynein 1 intermediate chain 2 serves as a crucial non-catalytic accessory component of the cytoplasmic dynein 1 complex, functioning as a molecular motor responsible for the intracellular retrograde transport of vesicles and organelles along microtubules. This protein mediates the essential linkage between dynein and its cargos, as well as adapter proteins like dynactin through interaction with the p150-glued component (DCTN1). It plays vital roles in membrane transport processes involving the Golgi apparatus, late endosomes, and lysosomes. The protein localizes to the cytoplasm and cytoskeleton, with specific detection in cellular structures such as the manchette in elongating spermatids, highlighting its importance in cellular organization and intracellular trafficking pathways.