Recombinant DCTN2 protein (His tag)

Catalog Number	540273
Synonyms	50 kDa dynein-associated polypeptide; Dynactin complex 50 kDa subunit; DCTN-50; p50 dynamitin
Species	Human
Expression System	E. coli
Accession	Q13561
Molecular Weight	Predictes a molecular mass of 35.13 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 36 kDa band.

Product Information

Sequence Region	98-401
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>85%, 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 98-401 aa (Q13561) 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 Dynactin subunit 2 (DCTN2) fragment (residues 98-401) is a high-purity, stable protein designed for structural and biochemical research. This 304-amino acid fragment represents a soluble and functional unit ideal for investigating the dynactin complex's role in microtubule-based transport and mitotic regulation. Dynactin subunit 2 (DCTN2), also known as p50 dynamitin, is a key component of the dynactin complex, which activates the molecular motor dynein for ultra-processive transport along microtubules. It functions as a molecular ruler within the dynactin shoulder domain to determine filament length and modulates cytoplasmic dynein binding to organelles. The protein is critical for prometaphase chromosome alignment, spindle organization during mitosis, and anchoring microtubules to centrosomes. It may also contribute to synapse formation in brain development. Located in the cytoplasm, cytoskeleton, microtubule organizing center, and centrosome, DCTN2 is a peripheral membrane protein involved in essential cellular processes.