Recombinant DRC1 protein (His tag)

Catalog Number	541037
Synonyms	Coiled-coil domain-containing protein 164
Species	Human
Expression System	E. coli
Accession	Q96MC2
Molecular Weight	Predictes a molecular mass of 55.02 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 64 kDa band.

Product Information

Sequence Region	1-445
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 1-445 aa (Q96MC2) 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 Dynein Regulatory Complex Protein 1 (DRC1) Fragment (1-445) is a high-purity, stable protein fragment designed for structural and biochemical studies. This product represents a soluble domain of the DRC1 protein, which plays a critical role in regulating ciliary and flagellar motility. Ideal for researchers investigating axonemal assembly and motility mechanisms. Dynein Regulatory Complex Protein 1 (DRC1), also known as Coiled-coil domain-containing protein 164, is a key component of the nexin-dynein regulatory complex (N-DRC) that regulates ciliary and flagellar motility. It functions to maintain the alignment and integrity of the distal axoneme and modulates microtubule sliding in motile axonemes. DRC1 is essential for the assembly of the N-DRC, stabilizes multiple inner dynein arms and radial spokes, and coassembles with CCDC65/DRC2 to form a central scaffold necessary for N-DRC attachment to outer doublet microtubules. The protein is localized to the cytoplasm, specifically within the cytoskeleton of cilium and flagellum axonemes, highlighting its fundamental role in cellular motility and structural organization.