Recombinant NEBL protein (His tag)

Catalog Number	541886
Synonyms	Actin-binding Z-disk protein
Species	Human
Expression System	E. coli
Accession	O76041
Molecular Weight	Predictes a molecular mass of 19.45 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 20 kDa band.

Product Information

Sequence Region	36-191
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>87%, 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 36-191 aa (O76041) 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 Nebulette Fragment (residues 36-191) is a high-quality protein product derived from the actin-binding Z-disk protein, essential for sarcomere assembly. This 156-amino acid fragment has been computationally optimized for stability and solubility, making it an ideal reagent for structural studies and biochemical assays investigating cytoskeletal dynamics. Nebulette, encoded by the NEBL gene, is a critical cytoskeletal protein that binds actin and plays a vital role in Z-disk assembly in cardiac muscle sarcomeres. It functionally links sarcomeric actin to desmin intermediate filaments, contributing to the structural integrity of heart muscle. An alternative isoform (Isoform 2) localizes to the cytoplasm and may participate in focal adhesion assembly. These functions highlight Nebulette's importance in cellular architecture and muscle function, with implications for understanding cardiac biology and related pathologies.