Recombinant SYNEM protein (His tag)

Catalog Number	541736
Synonyms	Desmuslin
Species	Human
Expression System	E. coli
Accession	O15061
Molecular Weight	Predictes a molecular mass of 38.20 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 46 kDa band.

Product Information

Sequence Region	1-316
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 1-316 aa (O15061) 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 Synemin (Desmuslin) Fragment (residues 1-316) is a stable and soluble protein unit designed for structural and biochemical studies. This fragment offers researchers a reliable tool to investigate the cytoskeletal roles of Synemin, a key intermediate filament protein involved in muscle cell architecture and junctional integrity. Synemin, encoded by the SYNM gene, is a Type-VI intermediate filament that plays a critical cytoskeletal role in muscle cells. It forms heteromeric filaments with desmin and/or vimentin and interacts with proteins such as alpha-dystrobrevin, dystrophin, talin-1, utrophin, and vinculin. These interactions enable Synemin to link intermediate filaments to adherens-type junctions, including costameres, neuromuscular junctions, and myotendinous junctions in striated muscle cells. Subcellularly, Synemin localizes to the cytoplasm and cytoskeleton, with distinct populations interacting with desmin at Z-lines and with both dystrobrevin and desmin at costameres, highlighting its importance in maintaining structural integrity and cellular junctions.