Recombinant SGCA protein (His tag)

Catalog Number	540371
Synonyms	Alpha-SG; 50 kDa dystrophin-associated glycoprotein; 50DAG; Adhalin; Dystroglycan-2
Species	Human
Expression System	E. coli
Accession	Q16586
Molecular Weight	Predictes a molecular mass of 31.16 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 32 kDa band.

Product Information

Sequence Region	24-290
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>88%, 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 24-290 aa (Q16586) 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 Alpha-sarcoglycan (Alpha-SG) fragment (amino acids 24-290) is a high-quality, soluble protein designed for structural and biochemical studies. This 267-amino acid fragment, derived from the human SGCA gene, represents a stable domain ideal for investigating the dystrophin-glycoprotein complex's role in cytoskeletal-extracellular matrix linkage. Alpha-sarcoglycan is a key component of the sarcoglycan complex, a critical subcomplex within the dystrophin-glycoprotein complex. This assembly forms an essential mechanical link between the F-actin cytoskeleton and the extracellular matrix, providing structural stability to muscle cell membranes. The full-length protein is localized to the sarcolemma (cell membrane) as a single-pass type I membrane protein and also associates with the cytoskeleton in the cytoplasm, playing a vital role in maintaining muscle integrity and function.