Recombinant SMTL1 protein (His tag)

Catalog Number	546385
Species	Human
Expression System	E. coli
Accession	A8MU46
Molecular Weight	Predictes a molecular mass of 15.09 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 15 kDa band.

Product Information

Sequence Region	378-494
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 378-494 aa (A8MU46) 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 Smoothelin-like protein 1 (SMTNL1) fragment (residues 378-494) is a high-purity protein designed for investigating the Calponin-homology (CH) domain. This 117-amino acid fragment serves as an essential tool for studying contractile regulation in muscle tissues, enabling targeted research into domain-specific functions. Smoothelin-like protein 1, encoded by the SMTNL1 gene, plays a critical role in regulating contractile properties in both striated and smooth muscles. In its unphosphorylated state, it inhibits myosin dephosphorylation, while phosphorylation at Ser-299 reduces this inhibitory activity. The protein localizes to cytoplasmic myofibrils, specifically within sarcomere I bands and M lines, and can translocate to the nucleus upon phosphorylation at Ser-301. This recombinant fragment spanning residues 378-494 contains the complete Calponin-homology (CH) domain (residues 378-484), making it particularly valuable for studying domain-mediated interactions in muscle contractility pathways.