Recombinant MTPN protein (His tag)

Catalog Number	542437
Synonyms	Protein V-1
Species	Human
Expression System	E. coli
Accession	P58546
Molecular Weight	Predictes a molecular mass of 14.42 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 16 kDa band.

Product Information

Sequence Region	2-118
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 2-118 aa (P58546) 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 Myotrophin (Protein V-1) Fragment (aa 2-118) is a high-purity, stable protein designed for structural and biochemical studies. This fragment, derived from the MTPN gene, retains key functional properties, including roles in NF-kappa-B regulation and actin filament dynamics, offering researchers a reliable tool for investigating cellular signaling and cytoskeletal processes. Myotrophin (Protein V-1), encoded by the MTPN gene in Homo sapiens, is a multifunctional protein that promotes dimerization of NF-kappa-B subunits and regulates NF-kappa-B transcription factor activity, playing a critical role in inflammatory and immune responses. It also modulates actin filament growth by inhibiting the F-actin-capping protein complex formed by CAPZA1 and CAPZB, influencing cytoskeletal organization. Additionally, Myotrophin is involved in cardiac muscle hypertrophy, promoting cardiomyocyte growth without affecting proliferation. The protein localizes to the cytoplasm, perinuclear region, and nucleus, underscoring its involvement in both cytoplasmic signaling and nuclear transcriptional regulation. This recombinant fragment (aa 2-118) encompasses the stable core domain, enabling focused studies on its mechanistic roles.