Recombinant LAP2A protein (His tag)

Catalog Number	546974
Synonyms	Thymopoietin isoform alpha; TP alpha; Thymopoietin-related peptide isoform alpha; TPRP isoform alpha; TP; Splenin; TP5
Species	Human
Expression System	E. coli
Accession	P42166
Molecular Weight	Predictes a molecular mass of 23.54 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 24 kDa band.

Product Information

Sequence Region	493-694
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 493-694 aa (P42166) 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 Lamina-associated polypeptide 2, isoform alpha (TMPO) Fragment (aa 493-694) is a 202-amino acid protein fragment designed for structural and biochemical studies. This fragment represents a stable, soluble unit of the full-length protein, which plays critical roles in nuclear organization and T-cell immunomodulation, making it an ideal tool for investigating nuclear architecture and immune function mechanisms. The full-length Lamina-associated polypeptide 2, isoform alpha (encoded by the TMPO gene) is essential for the structural organization of the nucleus and post-mitotic nuclear assembly. It collaborates with lamin A/C (LMNA) in the nuclear anchorage of the retinoblastoma protein (RB1), contributing to cell cycle regulation. Additionally, its cleavage products, thymopoietin (TP) and thymopentin (TP5), are implicated in T-cell development and function, with TP5 serving as an immunomodulating pentapeptide. The protein is localized diffusely throughout the nucleus and is associated with chromosomes, underscoring its role in nuclear integrity and gene regulation. This fragment (aa 493-694) was selected computationally to provide a stable, soluble region for focused research on these biological processes.