Recombinant TIPRL protein (His tag)

Catalog Number	546557
Synonyms	Putative MAPK-activating protein PM10; Type 2A-interacting protein; TIP
Species	Human
Expression System	E. coli
Accession	O75663
Molecular Weight	Predictes a molecular mass of 20.97 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 23 kDa band.

Product Information

Sequence Region	108-272
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>89%, 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 108-272 aa (O75663) 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 TIP41-like protein fragment (residues 108-272), derived from the human TIPRL gene, offers a stable and soluble unit ideal for investigating its role as a regulatory component in phosphatase activity and DNA damage response pathways. This fragment is optimized for structural and biochemical studies, facilitating research into cellular signaling mechanisms. The full-length TIP41-like protein, encoded by the TIPRL gene in Homo sapiens, functions as an allosteric regulator of serine/threonine-protein phosphatase 2A (PP2A), inhibiting the catalytic activity of the PP2A(D) core complex in vitro. It also acts as a negative regulator of serine/threonine-protein phosphatase 4, potentially by impeding the formation of the active PPP4C:PPP4R2 complex, which is implicated in DNA damage response through promotion of gamma-H2AX phosphorylation. This protein may further play a role in modulating the ATM/ATR signaling pathway, which governs DNA replication and repair processes. Subcellular localization studies confirm its presence in the cytoplasm, underscoring its involvement in key intracellular regulatory mechanisms.