Recombinant MAP1B protein (His tag)

Catalog Number	539972
Synonyms	MAP-1B
Species	Human
Expression System	E. coli
Accession	P46821
Molecular Weight	Predictes a molecular mass of 57.20 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 59 kDa band.

Product Information

Sequence Region	31-522
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>90%, 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 31-522 aa (P46821) 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	This recombinant protein is a fragment of human Microtubule-associated protein 1B (MAP-1B), encompassing amino acids 31-522. It is designed to provide a stable and soluble unit ideal for structural studies and biochemical assays, supporting research on microtubule dynamics and neuronal cytoskeletal regulation. Microtubule-associated protein 1B (MAP-1B) is a key cytoskeletal protein in Homo sapiens that facilitates the tyrosination of alpha-tubulin in neuronal microtubules. Phosphorylated MAP1B is essential for proper microtubule dynamics, playing a critical role in neuronal differentiation and neurite extension by potentially binding multiple tubulin subunits to nucleate polymerization and stabilize microtubules. Additionally, it acts as a positive cofactor in DAPK1-mediated autophagic vesicle formation and membrane blebbing. MAP1B is localized in the cytoplasm, cytoskeleton, synapses, and dendritic spines, where it colocalizes with DAPK1 in microtubules and cortical actin fibers, highlighting its importance in cellular structure and neuronal function.