Recombinant MACA1 protein (His tag)

Catalog Number	547480
Synonyms	Microtubule-associated tyrosine carboxypeptidase
Species	Human
Expression System	E. coli
Accession	Q68EN5
Molecular Weight	Predictes a molecular mass of 40.06 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 40 kDa band.

Product Information

Sequence Region	142-471
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 142-471 aa (Q68EN5) 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 Microtubule-associated tyrosine carboxypeptidase 1 (MATCAP1) fragment (residues 142-471) is a high-purity, soluble protein designed for studying microtubule regulation and enzymatic activity. This 330-amino acid fragment retains key functional regions, making it ideal for structural, biochemical, and functional assays in cytoskeleton research. Microtubule-associated tyrosine carboxypeptidase 1 (EC 3.4.17.17) is a specialized enzyme that removes C-terminal tyrosine residues from alpha-tubulin, playing a critical role in modulating microtubule dynamics and function. It also demonstrates activity against C-terminal phenylalanine residues in TUBA8 tubulin. The protein localizes to the cytoplasm and cytoskeleton, where it directly associates with microtubules and recognizes adjacent tubulin dimers along protofilaments. This recombinant fragment represents a stable, soluble unit computationally optimized for experimental applications while maintaining biological relevance to the full-length protein's microtubule-regulatory functions.