Recombinant POT2 protein (His tag)

Catalog Number	534717
Species	Caenorhabditis elegans
Expression System	E. coli
Accession	O45595
Gene ID	175110
Molecular Weight	Predictes a molecular mass of 23.33 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 25 kDa band.

Product Information

Sequence Region	1-187
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 1-187 aa (O45595) 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 Protection of telomeres homolog 2 (POT-2) fragment (amino acids 1-187) from Caenorhabditis elegans, designed for structural and biochemical studies. This stable, soluble protein unit enables investigation of telomeric DNA-binding mechanisms and telomere length regulation. Protection of telomeres homolog 2 (POT-2) is a nucleus-localized telomeric DNA-binding protein that specifically recognizes single-stranded G-rich repeat sequences, particularly the 5'-TTAGGC-3' motif, requiring a 3' telomeric overhang for binding. Functioning redundantly with POT-1, it negatively regulates telomerase-mediated telomere extension and participates in the telomerase-independent ALT (alternative lengthening of telomeres) pathway to maintain telomere length. Unlike some telomeric proteins, POT-2 does not anchor telomeres to the nuclear envelope. Its localization to chromosome telomeres underscores its direct role in telomere maintenance mechanisms.