Recombinant MRT2 protein (His tag)

Catalog Number	531930
Species	Caenorhabditis elegans
Expression System	E. coli
Accession	G5EC44
Gene ID	176608
Molecular Weight	Predictes a molecular mass of 31.57 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 34 kDa band.

Product Information

Sequence Region	1-267
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 1-267 aa (G5EC44) 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 fragment of the Cell cycle checkpoint protein RAD1 homolog mrt-2 (EC 3.1.11.2) from Caenorhabditis elegans, encompassing residues 1-267. This stable and soluble fragment is ideal for structural studies, biochemical assays, and investigating DNA damage response mechanisms. The full-length mrt-2 protein is a critical component of the 9-1-1 cell-cycle checkpoint complex, which plays a major role in DNA repair and genome stability. It promotes cell cycle arrest and apoptosis in response to DNA double-strand breaks, and is essential for telomere length maintenance and germline immortality. The protein is localized to the nucleus and may exhibit 3'->5' double-stranded DNA exonuclease activity, underscoring its importance in cellular stress responses and longevity pathways.