Recombinant FOLC protein (His tag)

Catalog Number	534346
Synonyms	Folylpoly-gamma-glutamate synthetase; FPGS; Tetrahydrofolylpolyglutamate synthase; Tetrahydrofolate synthase
Species	Caenorhabditis elegans
Expression System	E. coli
Accession	Q09509
Gene ID	175842
Molecular Weight	Predictes a molecular mass of 54.62 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 55 kDa band.

Product Information

Sequence Region	33-510
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 33-510 aa (Q09509) 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 Putative Folylpolyglutamate Synthase (FPGS) Fragment (residues 33-510) from Caenorhabditis elegans. This 478-amino acid fragment is a stable, soluble unit ideal for structural studies and biochemical assays, enabling research into folate metabolism and one-carbon transfer pathways. Putative Folylpolyglutamate Synthase (FPGS) catalyzes the conversion of folates to polyglutamate derivatives, facilitating intracellular folate concentration and retention. These cofactors are essential substrates for folate-dependent enzymes involved in one-carbon transfer reactions critical for purine, pyrimidine, and amino acid synthesis. The full-length protein localizes to the mitochondrion inner membrane, mitochondrial matrix, and cytoplasm, underscoring its role in cellular folate homeostasis across multiple compartments.