# Recombinant HMCS protein (His tag)

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| **Catalog Number** | 534537 |
| **Synonyms** | HMG-CoA synthase; 3-hydroxy-3-methylglutaryl coenzyme A synthase |
| **Species** | Caenorhabditis elegans |
| **Expression System** | E. coli |
| **Accession** | P54871 |
| **Gene ID** | 178956 |
| **Molecular Weight** | Predictes a molecular mass of 53.07 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 53 kDa band. |

## Product Information

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| **Sequence Region** | 1-462 |
| **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 1-462 aa (P54871) were fused with 6His tag. |

## Storage & Handling

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| **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.<br>Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise. |

## Description

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| **Description** | Recombinant Hydroxymethylglutaryl-CoA synthase (HMG-CoA synthase) from Caenorhabditis elegans, encompassing amino acids 1-462. This fragment is a stable, soluble unit ideal for structural and biochemical studies, supporting research in metabolic pathway analysis.<br>Hydroxymethylglutaryl-CoA synthase (EC 2.3.3.10) catalyzes the condensation of acetyl-CoA with acetoacetyl-CoA to form HMG-CoA, a key substrate for HMG-CoA reductase in the mevalonate pathway. This enzyme plays a critical role in isoprenoid and sterol biosynthesis, making it significant for studies on metabolism and related biological processes. The provided fragment represents a computationally optimized region for experimental applications. |