Recombinant MCM10 protein (His tag)

Catalog Number	545288
Synonyms	HsMCM10
Species	Human
Expression System	E. coli
Accession	Q7L590
Molecular Weight	Predictes a molecular mass of 27.71 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 30 kDa band.

Product Information

Sequence Region	652-875
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>88%, 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 652-875 aa (Q7L590) 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 MCM10 (HsMCM10) Fragment (aa 652-875) is a highly stable and soluble protein unit designed for structural and biochemical studies. This 224-amino acid fragment enables researchers to investigate the critical role of MCM10 in DNA replication initiation and genome stability maintenance, offering a reliable tool for elucidating mechanisms of replication complex assembly. Protein MCM10 homolog (HsMCM10) is an essential replication initiation factor that orchestrates the assembly of the MCM2-7 helicase with the DNA polymerase alpha/primase complex to initiate DNA replication. Beyond its primary replication function, MCM10 plays a crucial protective role in preventing DNA damage during replication and serves as a key effector in regulating DNA replication and common fragile sites stability through transcriptional repression by ZBTB38. The protein localizes to the nucleus, where it colocalizes with ORC2 in nuclear foci and associates with chromatin during S phase, transitioning through distinct nuclear compartments throughout the cell cycle - from discrete nuclear foci in early S phase to nuclear periphery and nucleolar regions in mid-S phase, and finally to nucleoli in late S and G phases.