Recombinant MCMBP protein (His tag)

Catalog Number	545818
Synonyms	MCM-BP; MCM-binding protein
Species	Human
Expression System	E. coli
Accession	Q9BTE3
Molecular Weight	Predictes a molecular mass of 48.95 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 49 kDa band.

Product Information

Sequence Region	226-642
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>85%, 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 226-642 aa (Q9BTE3) 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	Introducing the recombinant human Mini-chromosome maintenance complex-binding protein (MCM-BP) fragment (residues 226-642), a stable and soluble protein unit ideal for investigating DNA replication regulation and chromatin dynamics. This 417-amino acid fragment is computationally optimized for structural and biochemical studies, enabling researchers to explore MCM-BP's role in pre-replication complex disassembly with high reliability. MCM-BP is a critical regulator of DNA replication in humans, functioning as an associated component of the MCM complex. It binds during late S phase to promote disassembly of the MCM complex from chromatin, facilitating pre-replication complex unloading from replicated DNA without requiring ATP. This protein destabilizes MCM complex subunit interactions and is essential for maintaining sister chromatid cohesion. MCM-BP localizes to the nucleus with dynamic chromatin association—highest during G1/S and S phases, reduced in G2, minimal in early M phase, and reassociating in late M phase—dissociating later than other MCM components, underscoring its role in replication termination and chromatin remodeling.