Recombinant MORC2 protein (His tag)

Catalog Number	546360
Synonyms	MORC family CW-type zinc finger protein 2; Zinc finger CW-type coiled-coil domain protein 1
Species	Human
Expression System	E. coli
Accession	Q9Y6X9
Molecular Weight	Predictes a molecular mass of 16.57 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 18 kDa band.

Product Information

Sequence Region	905-1032
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>89%, 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 905-1032 aa (Q9Y6X9) 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 ATPase MORC2 (EC 3.6.1.-) Fragment (residues 905-1032) is a high-purity, stable protein designed for structural and biochemical studies. This 128-amino acid fragment, derived from the MORC family CW-type zinc finger protein 2, offers researchers a soluble and functional unit to investigate the protein's role in epigenetic regulation and chromatin remodeling. The full-length ATPase MORC2 is a multifunctional protein essential for epigenetic silencing by the HUSH complex, where its ATPase activity and homodimerization drive heterochromatin formation and repression of germ cell-related genes and L1 retrotransposons. It collaborates with SETDB1 to establish repressive marks like H3K9me3 and recruits histone deacetylases (e.g., HDAC4) to silence targets such as CA9, often within introns of active genes. Additionally, MORC2 responds to DNA damage by relocating to chromatin upon PAK1-mediated phosphorylation, regulating H2AX expression and chromatin remodeling via ATP hydrolysis. It also plays a cytosolic role in lipogenesis and lipid homeostasis by modulating ACLY activity. Predominantly nuclear, MORC2 localizes to the nucleus, cytosol, chromosome, and nuclear matrix, with phosphorylation influencing its recruitment to damaged chromatin. The fragment (residues 905-1032) provides a stable, soluble region for probing these mechanisms without contained domains.