Recombinant CHD4 protein (His tag)

Catalog Number	538062
Synonyms	CHD-4; ATP-dependent helicase CHD4; Mi-2 autoantigen 218 kDa protein; Mi2-beta
Species	Human
Expression System	E. coli
Accession	Q14839
Molecular Weight	Predictes a molecular mass of 26.75 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 27 kDa band.

Product Information

Sequence Region	1696-1912
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>86%, 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 1696-1912 aa (Q14839) 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 Chromodomain-helicase-DNA-binding protein 4 (CHD-4) fragment (residues 1696-1912) is a highly stable and soluble 217-amino acid protein derived from human CHD4. This fragment is ideal for structural studies, biochemical assays, and functional analyses, offering researchers a reliable tool to investigate the mechanisms of chromatin remodeling and DNA repair. CHD-4 is an ATP-dependent chromatin-remodeling factor in humans that binds and distorts nucleosomal DNA, playing a critical role in epigenetic regulation. As a core component of the histone deacetylase NuRD complex, it contributes to chromatin remodeling, transcriptional repression, and double-strand break repair via homologous recombination, particularly localizing to acetylated damaged chromatin in a ZMYND8-dependent manner. CHD-4 is also implicated in neurogenesis and associates with centrosomes during interphase. Predominantly nuclear, it translocates to DNA damage sites, underscoring its importance in maintaining genomic integrity and cellular function.