Recombinant KDM4D protein (His tag)

Catalog Number	545186
Synonyms	JmjC domain-containing histone demethylation protein 3D; Jumonji domain-containing protein 2D; [histone H3]-trimethyl-L-lysine(9) demethylase 4D
Species	Human
Expression System	E. coli
Accession	Q6B0I6
Molecular Weight	Predictes a molecular mass of 41.97 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 42 kDa band.

Product Information

Sequence Region	1-350
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 1-350 aa (Q6B0I6) 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	This recombinant protein product features a 1-350 fragment of human Lysine-specific demethylase 4D (KDM4D), encompassing the complete JmjN and JmjC functional domains. This carefully designed fragment provides researchers with a specialized tool for investigating the enzymatic mechanisms and biological functions of these critical histone modification domains. Lysine-specific demethylase 4D (KDM4D) is a histone demethylase that specifically targets trimethylated and dimethylated 'Lys-9' residues on histone H3, playing a central role in epigenetic regulation through histone code modification. The enzyme demonstrates strict substrate specificity, showing no activity toward histone H3 'Lys-4', 'Lys-27', 'Lys-36' or H4 'Lys-20' residues, and is inactive on monomethylated H3 'Lys-9'. The demethylation reaction catalyzed by KDM4D generates formaldehyde and succinate as byproducts. As a nuclear-localized protein, KDM4D functions within the nucleus where it participates in chromatin remodeling and gene expression regulation through its histone modification activity.