Recombinant KDM2A protein (His tag)

Catalog Number	548558
Synonyms	CXXC-type zinc finger protein 8; F-box and leucine-rich repeat protein 11; F-box protein FBL7; F-box protein Lilina; F-box/LRR-repeat protein 11; JmjC domain-containing histone demethylation protein 1A; [Histone-H3]-lysine-36 demethylase 1A
Species	Human
Expression System	E. coli
Accession	Q9Y2K7
Molecular Weight	Predictes a molecular mass of 40.55 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 42 kDa band.

Product Information

Sequence Region	36-363
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 36-363 aa (Q9Y2K7) 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 Lysine-specific demethylase 2A (KDM2A) Fragment (residues 36-363) is a high-purity protein designed for studying histone demethylation mechanisms. This fragment fully encompasses the JmjC domain, making it an ideal tool for investigating H3K36me2 demethylase activity and chromatin regulation in epigenetic research. Lysine-specific demethylase 2A (KDM2A) is a crucial histone demethylase that specifically targets dimethylated Lys-36 on histone H3, playing a central role in the histone code and epigenetic regulation. The full-length protein maintains heterochromatic states, associates with centromeres to repress non-coding RNA transcription, and sustains centromeric integrity and genomic stability during mitosis. Additionally, KDM2A regulates circadian gene expression by repressing CLOCK-BMAL1 heterodimer and RORA activity in a catalytically-independent manner. KDM2A localizes to the nucleus and nucleoplasm with punctate expression, particularly enriched in perinucleolar regions, and specifically nucleates at CpG islands where it creates chromatin depleted in H3K36me2.