

## KDM2A Protein, Human (His)

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| Cat. No.:         | HY-P701622  |
| Synonyms:         | KDM2A; Lysine-specific demethylase 2A; 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   |
| Source:           | E. coli   |
| Accession:        | Q9Y2K7 (R567-S681)  |
| Gene ID:          | 22992   |
| Molecular Weight: |   |

### PROPERTIES

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| Appearance          | Solution.  |
| Formulation         | Supplied as a 0.22 µm filtered solution of 50 mM Tris-HCl, pH7.5, 200 mM NaCl, 20% glycerol.   |
| Endotoxin Level     | <1 EU/µg, determined by LAL method.  |
| Reconstitution      | Please use rapid thawing with running water to thaw the protein.   |
| Storage & Stability | Stored at -80°C for 1 year. It is stable at -20°C for 3 months after opening. It is recommended to freeze aliquots at -80°C for extended storage. Avoid repeated freeze-thaw cycles. |
| Shipping            | Shipping with dry ice.   |

### DESCRIPTION

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| Background | <p>KDM2A Protein, a histone demethylase, assumes a pivotal role in the histone code by specifically targeting 'Lys-36' of histone H3. This enzyme exhibits a preference for demethylating the dimethylated H3 'Lys-36' residue, displaying weak or no activity towards mono- and tri-methylated H3 'Lys-36.' Beyond its histone demethylase function, KDM2A showcases versatility by recognizing and binding to certain phosphorylated proteins, promoting their ubiquitination and subsequent degradation. Essential for maintaining the heterochromatic state, KDM2A associates with centromeres, where it represses the transcription of small non-coding RNAs encoded by satellite repeat clusters, crucial for centromeric integrity and genomic stability, particularly during mitosis. Moreover, KDM2A exerts influence over circadian gene expression by suppressing the transcriptional activator activity of the CLOCK-BMAL1 heterodimer and RORA, demonstrating a catalytically-independent regulatory role in circadian rhythms. The multifaceted functions of KDM2A underscore its significance in the intricate orchestration of chromatin dynamics and cellular processes.</p> |
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**Caution: Product has not been fully validated for medical applications. For research use only.**

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