

[histone-H3]-lysine-36 demethylase

Cat. No. EXWM-0644

Lot. No. (See product label)

Introduction

Description Requires iron(II). Of the seven potential methylation sites in histones H3 (K4, K9, K27, K36, K79) and H4 (K20, R3) from HeLa cells, the enzyme is specific for Lys-36. Lysine residues exist in three methylation states (mono-, di- and trimethylated). The enzyme preferentially demethylates the dimethyl form of Lys-36 (K36me₂), which is its natural substrate, to form the monomethyl and unmethylated forms of Lys-36. It can also demethylate the monomethyl- but not the trimethyl form of Lys-36.

Synonyms JHDM1A; JmjC domain-containing histone demethylase 1A; H3-K36-specific demethylase; histone-lysine (H3-K36) demethylase; histone demethylase; protein-6-N,6-N-dimethyl-L-lysine,2-oxoglutarate:oxygen oxidoreductase

Product Information

Form Liquid or lyophilized powder

EC Number EC 1.14.11.27

Reaction protein N⁶,N⁶-dimethyl-L-lysine + 2 2-oxoglutarate + 2 O₂ = protein L-lysine + 2 succinate + 2 formaldehyde + 2 CO₂ (overall reaction); (1a) protein N⁶,N⁶-dimethyl-L-lysine + 2-oxoglutarate + O₂ = protein N⁶-methyl-L-lysine + succinate + formaldehyde + CO₂; (1b) protein N⁶-methyl-L-lysine + 2-oxoglutarate + O₂ = protein L-lysine + succinate + formaldehyde + CO₂

Notes This item requires custom production and lead time is between 5-9 weeks. We can custom produce according to your specifications.

Storage and Shipping Information

Storage Store it at +4 °C for short term. For long term storage, store it at -20 °C~-80 °C.