Creative Enzymes®

[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 ℃ for short term. For long term storage, store it at -20 ℃~-80 ℃.