

Recombinant Human JHDM1D, GST-tagged

Cat. No. JHDM1D-46H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human JHDM1D was generated by expressing a GST fusion protein containing residues 1-488 of JHDM1D in E. coli cells, followed by affinity purification and cleavage of the GST tag with thrombin to produce a protein with an observed molecular weight of 54.990 kDa.
Species	Human
Source	E.coli
ProteinLength	1-488 a.a.
Description	The protein contains different segments for both recognizing and removing opposing methyl groups. While the PHD binds H3K4me3, an alteration associated with transcriptional activation, the Jumonji (catalytic) domain demethylates H3K27me2, a mechanism associated with transcriptional repression. The enzymes' catalytic activity and substrate specificity is thereby enhanced through the simultaneous binding of multiple domains. The ability to apprehend the function of individual methyl marks could lead to a marked understanding of the language of the histone code.
Form	20 mM Bis-Tris, pH 5.5, 200 mM NaCl, 5% (v/v) glycerol and 1 mM DTT.
Applications	Enzyme kinetics, inhibitor screening, and selectivity profiling.
Storage	Recombinant proteins in solution are temperature sensitive and must be stored at -80°C to prevent degradation. Avoid repeated freeze/thaw cycles and keep on ice

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when not in storage.

Concentration 0.3 mg/ml

GENE INFORMATION

Gene Name JHDM1D jumonji C domain containing histone demethylase 1 homolog D (S. cerevisiae) [Homo sapiens]

Official Symbol JHDM1D

Synonyms JHDM1D; jumonji C domain containing histone demethylase 1 homolog D (S. cerevisiae); lysine-specific demethylase 7; KIAA1718; histone lysine demethylase JHDM1D; jmjC domain-containing histone demethylation protein 1D; jumonji C domain-containing histone demethylase 1 homolog D; KDM7A;

Gene ID 80853

mRNA Refseq NM_030647

Protein Refseq NP_085150

UniProt ID Q6ZMT4

Chromosome Location 7q34

Function histone demethylase activity (H3-K27 specific); histone demethylase activity (H3-K36 specific); histone demethylase activity (H3-K9 specific); histone demethylase activity (H4-K20 specific); iron ion binding; iron ion binding; metal ion binding; methylated histone residue binding; oxidoreductase activity; oxidoreductase activity, acting on

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paired donors, with incorporation or reduction of molecular oxygen, 2-oxoglutarate as one donor, and incorporation of one atom each of oxygen into both donors; oxidoreductase activity, acting on single donors with incorporation of molecular oxygen, incorporation of two atoms of oxygen; zinc ion binding;