

Recombinant Human PHF8 Protein (A38-N483), His tagged

Cat. No. PHF8-0538H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human 6His-TEV-PHF8(A38-N483) Protein was expressed in E. coli.
Species	Human
Source	E.coli
ProteinLength	A38-N483
Description	Histone lysine demethylase with selectivity for the di- and monomethyl states that plays a key role cell cycle progression, rDNA transcription and brain development. Demethylates mono- and dimethylated histone H3 'Lys-9' residue (H3K9Me1 and H3K9Me2), dimethylated H3 'Lys-27' (H3K27Me2) and monomethylated histone H4 'Lys-20' residue (H4K20Me1). Acts as a transcription activator as H3K9Me1, H3K9Me2, H3K27Me2 and H4K20Me1 are epigenetic repressive marks. Involved in cell cycle progression by being required to control G1-S transition. Acts as a coactivator of rDNA transcription, by activating polymerase I (pol I) mediated transcription of rRNA genes. Required for brain development, probably by regulating expression of neuron-specific genes. Only has activity toward H4K20Me1 when nucleosome is used as a substrate and when not histone octamer is used as substrate. May also have weak activity toward dimethylated H3 'Lys-36' (H3K36Me2), however, the relevance of this result remains unsure in vivo. Specifically binds trimethylated 'Lys-4' of histone H3 (H3K4me3), affecting histone demethylase specificity: has weak activity toward H3K9me2 in absence of H3K4me3, while it has high activity toward H3K9me2 when binding H3K4me3.

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

Form	Liquid
Endotoxin	< 0.01 EU per µg of the protein
Purity	90%
Stability	Samples are stable for up to twelve months from date of receipt at -20 to -80 centigrade.
Storage	Store it under sterile conditions at -20 to -80 centigrade. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Storage Buffer	Supplied as sterile 50 mM Tris-HCl (pH7.5), 200 mM NaCl, 20% glycerol
Shipping	It is shipped out with blue ice.

GENE INFORMATION

Gene Name	PHF8 PHD finger protein 8 [Homo sapiens (human)]
Official Symbol	PHF8
Synonyms	PHF8; PHD finger protein 8; histone lysine demethylase PHF8; JHDM1F; jumonji C domain containing histone demethylase 1F; KIAA1111; ZNF422; jumonji C domain-containing histone demethylase 1F; MRXSSD; DKFZp686E0868;
Gene ID	23133
mRNA Refseq	NM_001184896
Protein Refseq	NP_001171825

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MIM	300560
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UniProt ID	Q9UPP1
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