

Datasheet for ABIN2669683
PHF8 Protein (DYKDDDDK Tag)

2 Images

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Overview

Quantity:	20 µg
Target:	PHF8
Origin:	Human
Source:	Baculovirus
Protein Type:	Recombinant
Purification tag / Conjugate:	This PHF8 protein is labelled with DYKDDDDK Tag.
Application:	Enzyme Activity Assay (EAA), Screening Assay (ScA)

Product Details

Characteristics:	Recombinant PHF8 (accession number NP_055922.1) was expressed in Sf9 and contains an N-terminal FLAG tag with a molecular weight of 121.1 kDa.
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Target Details

Target:	PHF8
Alternative Name:	PHF8 (PHF8 Products)
Background:	PHF8 (PHD finger protein 8), also known as Lysine (K)-specific demethylase 7B (KDM7B) and JmjC domain-containing histone demethylation protein 1D-B (JHDM1DB), is a member of the JmjC-containing (Jumonji-C) class of histone demethylase proteins that are involved in the regulation of genome function through the removal of methyl groups from histones. PHF8 has two N-terminal domains, a PHD finger that binds trimethylated lysine 4 of histone H3 (H3K4me3) and a Jumonji domain that demethylates monomethylated H3 Lys9 (H3K9me1), Histone H3 dimethyl Lys9 (H3K9me2), Histone H3 dimethyl Lys27 (H3K27me2) (which are all

Target Details

modifications associated with transcriptional repression) and also Histone H3 dimethyl Lys36 (H3K36me2). PHF8 depletion in mammalian neuronal cells results in decreased expression of follistatin and increased methylation of H3K9 and H3K27. It has also been suggested to function in gene silencing during brain development.

Molecular Weight: 121.1 kDa

Application Details

Application Notes: Recombinant PHF8 is suitable for use in the study of enzyme kinetics, inhibitor screening, and selectivity profiling. Specific Activity: H3K9me2, H3K36me2 and H4K20me1 demethylase. Histone Demethylase Assay Conditions: 50 mM HEPES pH 7.5, 0.02 % Triton X100, 100 µM 2OG, 100 µM Ascorbate, 50 µM (NH4)2Fe(SO4)2•6H2O, 1 mM TCEP, 100 nM Recombinant PHF8 protein, and 3.3 µM H3K9me2 (aa 1-21) peptide at 2 hours at room temperature. MALDI-TOF was used for detection.

Restrictions: For Research Use only

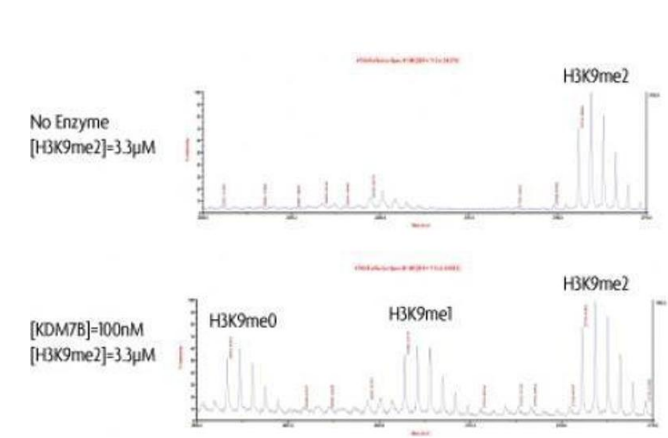
Handling

Handling Advice: Avoid repeated freeze/thaw cycles and keep on ice when not in storage.

Storage: -80 °C

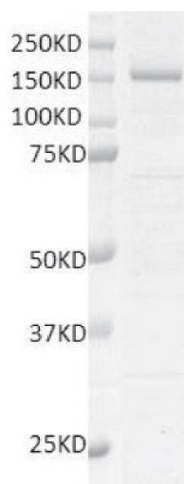
Storage Comment: Recombinant proteins in solution are temperature sensitive and must be stored at -80°C to prevent degradation.

Images



Activity Assay

Image 1. PHF8 activity assay. Recombinant PHF8 activity measured using a demethylation assay. MALDI-TOF was used for detection.



Western Blotting

Image 2. Recombinant PHF8 protein gel. PHF8 protein was run on a 10% SDS-PAGE gel and stained with Coomassie blue.