

Store at
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#77271**PHF19 Antibody**

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3 Trask Lane | Danvers | Massachusetts | 01923 | USA

For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W, IP	H Mk	Endogenous	70	Rabbit	#Q5T6S3	26147
Product Usage Information	Application					Dilution
	Western Blotting					1:1000
	Immunoprecipitation					1:100
Storage	Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at -20°C. Do not aliquot the antibody.					
Specificity/Sensitivity	PHF19 Antibody recognizes endogenous levels of total PHF19 protein.					
Source / Purification	Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues near the amino terminus of human PHF19 protein. Antibodies are purified by protein A and peptide affinity chromatography.					
Background	PHD finger protein 19 (PHF19), also known as polycomb-like protein 3 (PCL3), is a polycomb group protein that functions as an accessory subunit of the polycomb repressor complex 2 (PRC2), which represses target gene expression through methylation of histone H3 at Lys27 by the EZH2 methyltransferase (1). PHF19 recruits PRC2 to target genes by binding trimethylated histone H3 Lys36, a mark of active chromatin, via its Tudor domain (2-4). PHF19 associates with PRC2 and the histone H3 Lys36 demethylases NO66 and FBXL10, and is required to recruit PRC2 and NO66/FBXL10 to stem cell genes during differentiation, resulting in PRC2-mediated trimethylation of histone H3 Lys27, loss of trimethylated histone H3 Lys36, and transcriptional silencing (2-4). Thus, PHF19 is critical for the proper transition of stem cell genes from the active to inactive state during differentiation of embryonic stem cells.					
Background References	1. Sauvageau, M. and Sauvageau, G. (2010) <i>Cell Stem Cell</i> 7, 299-313. 2. Brien, G.L. et al. (2012) <i>Nat Struct Mol Biol</i> 19, 1273-81. 3. Ballaré, C. et al. (2012) <i>Nat Struct Mol Biol</i> 19, 1257-65. 4. Cai, L. et al. (2013) <i>Mol Cell</i> 49, 571-82.					

Species Reactivity	Species reactivity is determined by testing in at least one approved application (e.g., western blot).
Western Blot Buffer	IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v nonfat dry milk, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.
Applications Key	W: Western Blotting IP: Immunoprecipitation
Cross-Reactivity Key	H: Human Mk: Monkey
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