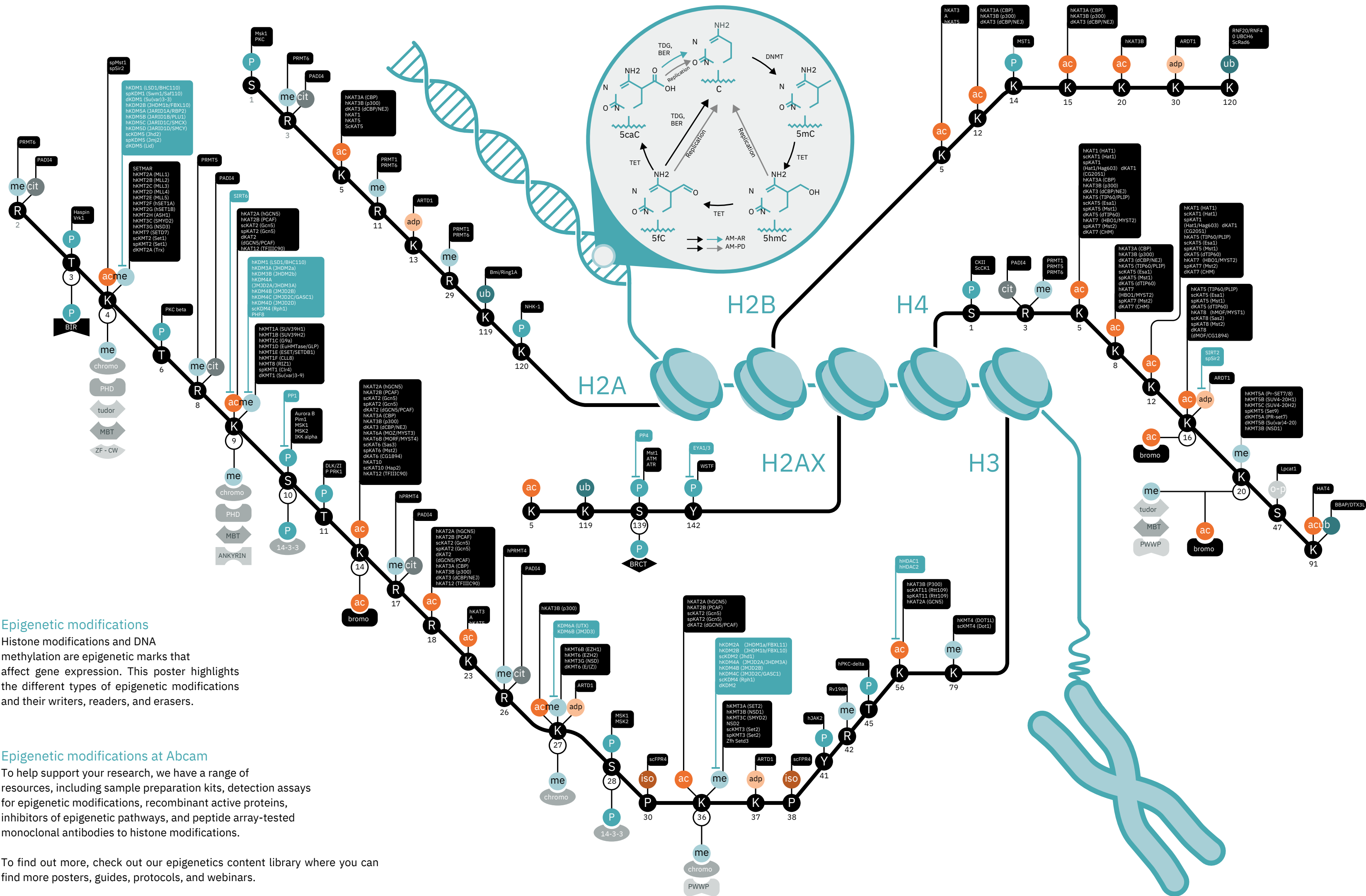


# Epigenetic modifications

Created by Abcam in collaboration with Tony Kouzarides and Andy Bannister (Gurdon Institute, Cambridge).



## Epigenetic modifications

Histone modifications and DNA methylation are epigenetic marks that affect gene expression. This poster highlights the different types of epigenetic modifications and their writers, readers, and erasers.

## Epigenetic modifications at Abcam

To help support your research, we have a range of resources, including sample preparation kits, detection assays for epigenetic modifications, recombinant active proteins, inhibitors of epigenetic pathways, and peptide array-tested monoclonal antibodies to histone modifications.

To find out more, check out our epigenetics content library where you can find more posters, guides, protocols, and webinars.

## Histone modifications

ac	Acetylation	cit	Deimination	O-	O-palmitoylation
ac	Deacetylation	P	Phosphorylation	P	Ubiquitination
me	Methylation	P	Dephosphorylation	adp	ADPRibosylation
me	Demethylation	iso	Isomerization		

## Histone modifications binding proteins

Chromodomain proteins		
chromo	CHD1 HP1/spSwi6 spChp1 CDY1 PC1/PC2/PC/LHP1 MSL3 hMRG15 scEaf3 CBX1,3,5 MPP8 Tip60 CBX2,4,6,7,8	H3K4me2/3 H3K9me2/3 H3K9me2/3 H3K9me2/3 H3K27me3, H3K9me3 H3K36me3 H3K36me, H3K4me3 H3K36me, H3K4me3 H3K9me3/2 H3K9me3/2 H3K27me3/2, H3K9me3/2
MBT proteins		
MBT	PHF20L1 SFMBT L3MBTL1 L3MBTL1 L3MBTL1/2 MBTD1	H3K4me1, H4K20me1 H3K9me1/2, H4K20me1/2 H4K20me1/2, H1bK26me1/2 H3K20me H3K9me H3K20me
PHD proteins		
PHD	scYng1 ING1,2,3,4,5 BPTF/dmNURF301 scSpp1 scSet3 scJhd1 RAG2 TAF3 ICBP90 (Np95) JARID1C JARID1A KIAA1718 Lid MLL1 PHF2,8 PHO23 Pygo CHD4 ICBP90 SMCX DPF3	H3K4me2/3 H3K4me2/3 H3K4me2/3 H3K4me2/3 H3K4me3 H3K4me3 H3K9me2/3 H3K9me3 H3K4me2/3 H3K4me2/3 H3K4me2/3 H3K4me2/3 H3K4me2/3 H3K4me2/3 H3K9me H3K9me H3K9me H3K14ac
14-3-3 proteins		
14-3-3	14-3-3	H3S10p, H3S28p
Tudor proteins		
tudor	JMJD2A 53BP1 spCrb2 PHF20 TDRD3 scSgf29 PHF19 PHF1	H3K4me3, H4K20me3 H4K20me1/2 H4K20me2 H4K20me2 H3R17me2a, H4R3me2a H3K4me2/3 H3K36me3 H3K36me3
Bromodomain proteins		
bromo	Polybromo/BAF180 scSnf2 Brd2,3,4,7 TAF1 P/CAF CBP/p300 scBdf1 hBRG1 scRsc1,2,4 scGcn5 ATAD2 BRDT CBP/p300 GCN5 PB-2 TRIM24	H3ac H3ac, H4ac H3ac, H4ac H3ac, H4ac H3ac, H4ac, H4K16ac H3ac, H4ac H4ac H3K14ac H3K14ac (Rsc4) H4ac, H4K16ac H3K14ac H4K5ac, H4K5ac, H3K18ac, H3K36ac H4K16ac H3K14ac H3K23ac H4K8ac, H4K20ac,
ZF-CW proteins		
ZF - CW	ZCWPW1	H3K4me1/2
ANKYRIN proteins		
ANKYRIN	G9a/GLP	H3K9me2/1
PWWP proteins		
PWWP	BRPF1 DNMT3A PDP1 HDGF2	H3K36me3 H3K36me3 H4K20me1 H3K36me3
BRCT proteins		
BRCT	MDC1	H2AXS139p (YH2AX)
BIR proteins		
BIR	Survivin	H3T1p