

Histone modifications and schematic structure

Modification	Histone	Residue	Effects of transcription
Acetylation	H2A	K5	Activation
	H2B	K5, K12, K15, K20	Activation
	H3	K4, K9, K14, K18,	Activation
	H3	K23, K36,	Activation
	H3	K56	DNA repair, histone deposition
	H4	K5, K8, K16	Activation
	H4	K12	Activation, histone deposition
	H4	K91	Histone deposition
Methylation	H3	K4, K79	Activation
	H3	K9, K27	Repression
	H3	R2, R8, R17, R26	Activation
	H3	K36	Elongation
	H4	R3	Activation
	H4	K20	Repression
Phosphorylation	H2A	S1, T120	Mitosis
	H2AX	S139	DNA repair
	H2B	S14	Apoptosis
	H3	T6	Activation
	H3	T3, S10, T11, S28	Mitosis, DNA repair
	H3	T45	DNA replication
	H4	S1	Mitosis, activation
Ubiquitination	H2A	K119	Repression
	H2B	K120	Elongation
	H3	K23	Maintenance of DNA methylation

K lysine, *R* arginine, *S* serine, *T* threonine

