



Symbols indicate processes associated or correlated with modification (effects will be context dependent)

C Chromatin condensation **S** Domain-limited functional chromatin changes DNA repair Cell division Replication/histone deposition

Active transcription Repressed transcription/ silent regions Apoptosis Symbols in purple indicate data from yeast

Other modifications include ADP ribosylation, such as that at H2BE2, proline isomerization, such as that at H3P38 and biotinylation.

'3D ref' columns list structure citations (in some cases including homologs from other species). Further reading can be found in refs. 106–139 and references cited therein.

Additional histone variants have been identified and are modified. These include macroH2A and histone H3.3 (ref. 106). Residues not shown are also modified¹⁰⁶, and the Reviews in this issue cover in detail the functions associated with modifications and cross-talk between modifications^{107–112}.

Structure figures used PyMOL (<http://pymol.sourceforge.net/>), domain assignments used PubMed and/or SMART (<http://smart.embl-heidelberg.de/>).

Me, methylation; Ub1, monoubiquitination; Ac, acetylation; Cit, citrullination; Phos, phosphorylation; Su, sumoylation.