

Methyl-Histone H3 Antibody Sampler Kit

Cat# AK0189

Upon receipt, store at -20°C. Avoid freeze/thaw cycles.

PRODUCT DESCRIPTION

The nucleosome, made up of four core histone proteins (H2A, H2B, H3, and H4), is the primary building block of chromatin. Originally thought to function as a static scaffold for DNA packaging, histones have now been shown to be dynamic proteins, undergoing multiple types of post-translational modifications, including acetylation, phosphorylation, methylation, and ubiquitination. Histone methylation is a major determinant for the formation of active and inactive regions of the genome and is crucial for the proper programming of the genome during development. Arginine methylation of histones H3 (Arg2, 17, 26) and H4 (Arg3) promotes transcriptional activation and is mediated by a family of protein arginine methyltransferases (PRMTs), including the co-activators PRMT1 and CARM1 (PRMT4). In contrast, a more diverse set of histone lysine methyltransferases has been identified, all but one of which contain a conserved catalytic SET domain originally identified in the *Drosophila* Su(var)3-9, Enhancer of zeste, and Trithorax proteins. Lysine methylation occurs primarily on histones H3 (Lys4, 9, 27, 36, 79) and H4 (Lys20) and has been implicated in both transcriptional activation and silencing. Methylation of these lysine residues coordinates the recruitment of chromatin modifying enzymes containing methyl-lysine binding modules such as chromodomains (HP1, PRC1), PHD fingers (BPTF, ING2), tudor domains (53BP1), and WD-40 domains (WDR5). The discovery of histone demethylases such as PADI4, LSD1, JMJD1, JMJD2, and JHDM1 has shown that methylation is a reversible epigenetic marker.

PRODUCT INCLUDES

Cat No.	Product name	Quantity	Applications	Reactivity	Host
A330113	Histone H3 Monoclonal Antibody	20µL	WB, IF, IP	Human, Mouse, Rat, Yeast	Mouse
A340409	Di-Methyl-Histone H3 (Lys4) Polyclonal Antibody	20µL	WB	Human, Mouse, Rat	Rabbit
A330123	Di-Methyl-Histone H3 (Lys9) Monoclonal Antibody	20µL	WB	Human, Mouse, Rat	Mouse
A330124	Di-Methyl-Histone H3 (Lys36) Monoclonal Antibody	20µL	WB	Human, Mouse, Rat	Mouse
A330121	Di-Methyl-Histone H3 (Lys27) Monoclonal Antibody	20µL	WB, IP	Human, Mouse, Rat	Mouse

A330117	Di-Methyl-Histone H3 (Lys79) Monoclonal Antibody	20μL	WB	Human, Mouse, Rat	Mouse
A1013s	Goat Anti-Rabbit IgG (H+L) (peroxidase/HRP conjugated)	120μL	WB, ELISA	Rabbit	Goat
A1012s	Goat Anti-Mouse IgG (H+L) (peroxidase/HRP conjugated)	120μL	WB, ELISA	Mouse	Goat

PRODUCT USE LIMITATION

These products are intended for research use only.