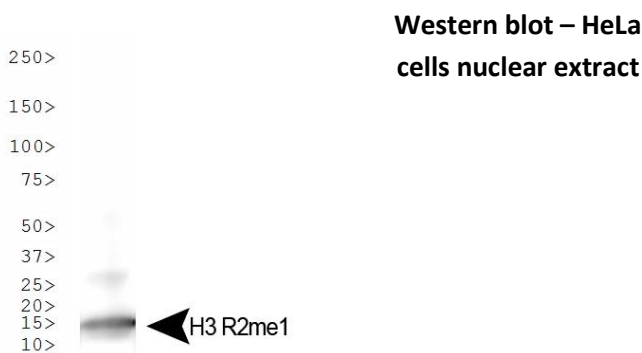


Description:	Histone H3 monomethyl arginine 2 antibody	Cat#:	NB21-1001
Species:	Human, mouse, rat	Gene:	HIST2H3C
Applications:	Westerns, dot blots, CHIP	Ab Type:	Rabbit affinity purified pAb
Modification:	R2Me1	Marker:	H3R2Me1
Immunogen:	Synthetic peptide containing monomethylated arginine (MMA) 2 of histone H3		
Gene Symbol:	HIST2H3C Entrez: 126961 (hu), 260423 (mu) Swiss Prot: Q71DI3 (hu), P84228 (mu)		

Images:



Background:

The nucleosome is comprised of 146 bp of DNA wrapped around a series of histone proteins arranged as an octamer consisting of 2 copies of histone H2A, H2B, H3 and H4 (1). Within the nucleosome core the histone proteins are covalently modified at specific residues predominantly within the N-terminal tail including lysine (acetylation, methylation, SUMOylation, and ubiquitylation), arginine methylation and citrullination, serine and threonine phosphorylation, as well as proline isomerization (2,3). The lysine side chains can carry up to three methyl groups (mono-, di- and trimethylated forms) and the arginine side chain can be monomethylated or can be dimethylated as the symmetric or asymmetric forms. The modifications show temporal, disease-specific, and other types of cell-specific regulation and there are specific families of enzymes that regulate the methylation, demethylation, acetylation, deacetylation and other modifications (4-8).

Arginine methylation is found on both nuclear and cytoplasmic proteins. Protein arginine N-methyltransferases (PRMTs) catalyze the methylation of arginine residues. Type I PRMTs (PRMT 1, 3, 4 [aka CARM1], 5, and 8) catalyze the formation of monomethyl arginine (MMA) which is then converted to asymmetric dimethyl arginine (SDMA). Type II PRMTs (PRMT 5, 7, and FBXO11) also regulates a number of different cellular processes, including transcriptional regulation, DNA damage repair, RNA metabolism, protein trafficking and signal transduction. PRMTs methylate glycine- and arginine-rich patches (GAR motifs) and it has also been shown that PRMT4 (CARM1) and PRMT5 can methylate PGM motifs (proline, glycine, methionine and arginine rich domains). The activity of PRMT2 and 9 has yet to be determined.

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Dilutions: WB - 1:1,000; ChIP 2-5 micrograms per 10^6 cells.

Unit Size: 50 micrograms (0.05mg) and 25 micrograms (0.025mg)

Storage: Short term storage at 4°C, long term storage at -20°C. Avoid unnecessary freeze-thaw.

Buffer: PBS, pH 7.4 with 30% glycerol

Preservative: 0.05% sodium azide

Limitations: This product is for research purposes only and is not approved for use in clinical diagnostics or for use in humans.

[Ask a question](#)

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