


Histone H4 (di-methyl K20) Quantification Kit (Colorimetric) ab115095

1 References

概述

产品名称	Histone H4 (di-methyl K20) Quantification试剂盒(Colorimetric)
检测方法	Colorimetric
样品类型	Tissue Extracts, Cell Lysate
灵敏度	5 ng/well
范围	20 ng/well - 2000 ng/well
检测时间	2h 30m
种属反应性	与反应: Mouse, Human 预测可用于: Mammals 

产品概述

Methylation of histone H4 at lysine 20 is catalyzed by SET9 and SUV4.20h among other methyl transferases in mammalian cells. H4 (di-methyl K20) has been described as repressive chromatin domain and involved in DNA damage response.

Histone H4 (di-methyl K20) Quantification Kit (Colorimetric) (ab115095) enables the user to measure global di-methylation of histone H4K20. The global H4K20 di-methylation can also be changed by inhibition or activation of HMTs, making quantitative detection of global di-methyl histone H4K20 a useful tool for better understanding epigenetic regulation of gene activation/repression. ab115095 is suitable for use with a variety of mammalian cells including fresh and frozen tissues, and cultured adherent and suspension cells.

平台 Microplate reader

性能

存放说明 Please refer to protocols.

组件	标识符	48 tests	96 tests
10X Wash Buffer		1 x 10ml	1 x 20ml
8-Well Sample Strips (with Frame)		4 units	9 units
8-Well Standard Control Strips	Green Ringed	2 units	3 units

组件	标识符	48 tests	96 tests
Antibody Buffer		1 x 6ml	1 x 12ml
Color Developer		1 x 5ml	1 x 10ml
Detecting Antibody, 1 mg/mL		1 x 5µl	1 x 10µl
Signal Enhancer		1 x 120µl	1 x 240µl
Signal Report Solution		1 x 5µl	1 x 10µl
Standard Control, 100 µg/mL		1 x 10µl	1 x 20µl
Stop Solution		1 x 3ml	1 x 6ml

功能	Core component of nucleosome. Nucleosomes wrap and compact DNA into chromatin, limiting DNA accessibility to the cellular machineries which require DNA as a template. Histones thereby play a central role in transcription regulation, DNA repair, DNA replication and chromosomal stability. DNA accessibility is regulated via a complex set of post-translational modifications of histones, also called histone code, and nucleosome remodeling.
序列相似性	Belongs to the histone H4 family.
翻译后修饰	<p>Acetylation at Lys-6 (H4K5ac), Lys-9 (H4K8ac), Lys-13 (H4K12ac) and Lys-17 (H4K16ac) occurs in coding regions of the genome but not in heterochromatin.</p> <p>Citrullination at Arg-4 (H4R3ci) by PADI4 impairs methylation.</p> <p>Monomethylation and asymmetric dimethylation at Arg-4 (H4R3me1 and H4R3me2a, respectively) by PRMT1 favors acetylation at Lys-9 (H4K8ac) and Lys-13 (H4K12ac).</p> <p>Demethylation is performed by JMJD6. Symmetric dimethylation on Arg-4 (H4R3me2s) by the PRDM1/PRMT5 complex may play a crucial role in the germ-cell lineage.</p> <p>Monomethylated, dimethylated or trimethylated at Lys-21 (H4K20me1, H4K20me2, H4K20me3). Monomethylation is performed by SET8. Trimethylation is performed by SUV420H1 and SUV420H2 and induces gene silencing.</p> <p>Ubiquitinated by the CUL4-DDB-RBX1 complex in response to ultraviolet irradiation. This may weaken the interaction between histones and DNA and facilitate DNA accessibility to repair proteins. Monoubiquitinated at Lys-92 of histone H4 (H4K91ub1) in response to DNA damage. The exact role of H4K91ub1 in DNA damage response is still unclear but it may function as a licensing signal for additional histone H4 post-translational modifications such as H4 Lys-21 methylation (H4K20me).</p> <p>Sumoylated, which is associated with transcriptional repression.</p>
细胞定位	Nucleus. Chromosome.

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