


Histone H4 (tri-methyl K20) Quantification Kit (Fluorometric) ab115098

製品の概要

製品名	Histone H4 (tri-methyl K20) Quantification Kit (Fluorometric)
検出方法	Fluorescent
サンプルの種類	Tissue, Adherent cells, Suspension cells
検出感度	1 ng/ml
検出範囲	10 ng/well - 2000 ng/well
全工程の試験時間	2h 30m
種交差性	交差種: Mouse, Human 交差が予測される動物種: Mammals 

製品の概要

Methylation of histone H4 at lysine 20 is catalyzed by SET9 and SUV4.20h among other methyl transferases in mammalian cells. H4 (tri-methyl K20) acts as a passive feature or structure determinant for chromatin degradation and release, as well as being an epigenetic marker of early apoptosis. H4 (tri-methyl K20) is also considered as a common hallmark of human cancer.

Histone H4 (tri-methyl K20) Quantification Kit (Fluorometric) (ab115098) enables the user to measure global tri-methylation of histone H4K20. The global H4K20 tri-methylation can also be changed by inhibition or activation of HMTs, making quantitative detection of global tri-methyl histone H4K20 a useful tool for better understanding epigenetic regulation of gene activation/repression. ab115098 is suitable for use with a variety of mammalian cells including fresh and frozen tissues, and cultured adherent and suspension cells.

試験プラットフォーム

Microplate reader

製品の特性

保存方法

Please refer to protocols.

内容	ラベル	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

内容	ラベル	48 tests	96 tests
Antibody Buffer		1 x 6ml	1 x 12ml
Detecting Antibody, 1 mg/mL		1 x 5µl	1 x 10µl
Fluoro Developer		1 x 12µl	1 x 24µl
Fluoro Dilution		1 x 4ml	1 x 8ml
Fluoro Enhancer		1 x 12µl	1 x 24µl
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

機能 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.

配列類似性 Belongs to the histone H4 family.

翻訳後修飾 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.

Citrullination at Arg-4 (H4R3ci) by PAD4 impairs methylation.

Monomethylation and asymmetric dimethylation at Arg-4 (H4R3me1 and H4R3me2a, respectively) by PRMT1 favors acetylation at Lys-9 (H4K8ac) and Lys-13 (H4K12ac).

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.

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.

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).

Sumoylated, which is associated with transcriptional repression.

細胞内局在 Nucleus. Chromosome.

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