# abcam

# Product datasheet

# Histone H4 (acetyl K5) Quantification Kit (Fluorometric) ab115117

概述

产品名称 Histone H4 (acetyl K5) Quantification试剂盒(Fluorometric)

检测方法 Fluorescent

样品类型 Tissue, Adherent cells, Suspension cells

**灵敏度** 0.4 ng/well

**范围** 5 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

A

产品概述 Acetylation of histones such histone H4 has been involved in the regulation of chromatin structure

and the recruitment of transcription factors to gene promoters. HATs (histone acetyltransferases) and HDACs (histone deacetylases) play a critical role in controlling histone H4 actylation. Histone H4 (acetyl K5) reflects the hyperacetylated stated in histone H4 and strongly correlates with active

state of genes. H4 (acetyl K5) is also considered to be a marker of dexamethasone

transactivation and a change in H4 (acetyl K5) is observed in cancer and inflammatory diseases.

Abcam's Histone H4 (acetyl K5) Quantification Kit (Fluorometric) (ab115117) allows the experimenter to measure global acetylation of histone H4K5 quickly and consistently. The kit is ready-to-use and provides all the essential components needed to carry out a successful assay experiment and it is suitable for specifically measuring global histone H4K5 acetylation using a variety of mammalian cells including fresh and frozen tissues, and cultured adherent and

suspension cells.

说明

平台 Microplate reader

性能

**存放说明** Please refer to protocols.

1

组 <b>件</b>	标识符	48 tests	96 tests
10X Wash Buffer		1 x 10ml	1 x 20ml
8-Well Sample Strips (with Frame)		6 units	9 units
8-Well Standard Control Strips	Green Ringed	2 units	3 units
Antibody Buffer		1 x 6ml	1 x 12ml
Detection 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

#### 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

翻译后修饰

Belongs to the histone H4 family.

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 PADI4 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.

### 细胞定位

Nucleus. Chromosome.

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

## Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit <a href="https://www.abcam.cn/abpromise">https://www.abcam.cn/abpromise</a> or contact our technical team.

#### Terms and conditions

• Guarantee only valid for products bought direct from Abcam or one of our authorized distributors