CREATIVE BIOMART®
Assay Kit

Acetyl Histone H4K12 Quantification Kit (Fluorometric)

Product Information

Cat.No. Kit-0023

Product Overview

Acetyl Histone H4K12 Quantification Kit (Fluorometric) is used for measuring acetylation of histone H4K12.

Description

Acetylation of histones, including histone H3 and H4, have been involved in the regulation of chromatin structure and the recruitment of transcription factors to the gene promoters. Histone acetyl transferases (HATs) and histone deacetylases (HDACs) play a critical role in the control of histone H4 acetylation at multiple sites. Acetylation of histone H4 at lysine 12 (H4K12) reflects the hyperacetylated state in histone H4 and is strongly correlated to active states of genes. H4K12 acetylation is observed in cancer and inflammatory diseases. Histone H4K12 acetylation may be increased by the inhibition of HDACs and decreased by HAT inhibition. Thus, quantitative detection of acetyl histone H4K12 would provide useful information for the better understanding of epigenetic regulation of gene activation and for developing HAT or HDAC-targeted drugs. Acetyl Histone H4K12 Quantification Kit (Fluorometric) pro-vides a tool for measuring acetylation of histone H4K12.

Applications

Acetyl Histone H4K12 Quantification Kit (Fluorometric) is suitable for specifically measuring histone H4K12 acetylation using a variety of mammalian cells (human, mouse, etc.) including fresh and frozen tissues, and cultured adherent and suspension cells.

Usage

For research use only (RUO)

Storage

Upon receipt, store F4 and standard control at –20°C. Store all other compo-nents at 4°C away from light. The components of the kit are stable for up to 6 months from the date of shipment, when stored properly.Note: Check if buffers F1 and F2 contain salt precipitates before using. If so, warm (at room temperature or 37°C) and shake the buffers until the salts are re-dissolved.

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Kit Components

F1 (10X wash buffer) 10 mlF2 (antibody buffer) 6 mlF3 (detecting antibody, 1 mg/ml)* 5 µlF4 (fluoro developer)* 12 µlF5 (fluoro enhancer)* 12 µlF6 (fluoro dilution) 4 mlStandard control (100 µg/ml)* 10 µlSignal report solution* 5 µlSignal enhancer* 120 µl8 well sample strips (with frame) 68 well standard control strips 2User guide 1* For maximum recovery of the products, centrifuge the original vial prior to opening the cap.

Detection method Fluorometric

Compatible Sample Types

Histone Extract

Features & Benefits

Quick and efficient procedure, which can be finished within 2.5 hours.Innovative fluorometric assay without the need for radioactivity, electrophoresis, or chromatography.Specifically captures acetyl H4K12 with the detection limit as low as 0.4 ng/well and detection range from 20 ng-5 µg/well of histone extracts.The control is conveniently included for the quantification of the amount of acetyl H4K12.Strip microplate format makes the assay flexible: manual or high throughput.Simple, reliable, and consistent assay conditions.

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