CREATIVE BIOMART®
Assay Kit

Acetyl Histone H4K12 Quantification Kit (Colorimetric)

Product Information

Cat.No. Kit-0022

Product Overview

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

Description

Acetylation of histones, including histone H3 and H4, has been involved in the regulation of chromatin structure and recruitment of transcription factors to the gene promoters. Histone acetyltransferases (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 better understanding epigenetic regulation of gene activation and for developing HAT or HDAC-targeted drugs. Acetyl Histone H4K12 Quantification Kit (Colorimetric) provides a tool for measuring acetylation of histone H4K12.

Applications

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

Usage

For research use only (RUO)

Storage

Upon receipt, store C3 and standard control at –20°C. Store all other components at 4°C away from light. The components of the kit are stable for 6 months when stored properly.Note: Check if buffers C1 and C2 contain salt precipitates prior to use. 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

C1 (10X wash buffer) 10 mlC2 (antibody buffer) 6 mlC3 (detection antibody, 1 mg/ml)* 5 µlC4 (color developer) 5 mlC5 (stop solution) 3 mlSignal report solution* 5 µlSignal enhancer* 120 µlStandard control (100 µg/ml)* 10 µl8 well sample strips (with frame) 48 well standard control strips 2User guide 1* For maximum recovery of the products, centrifuge the original vial prior to opening the cap.

Detection method Colorimetric

Compatible Sample Types

Histone Extract

Features & Benefits

Quick and efficient procedure, which can be finished within 2.5 hours.Innovative colorimetric assay without the need for radioactivity, electrophoresis, or chromatography.Specifically captures acetyl H4K12 with the detection limit as low as 2 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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