CREATIVE BIOMART®
Assay Kit

Acetyl Histone H4K16 Quantification Kit (Colorimetric)

Product Information

Cat.No. Kit-0024

Product Overview

Acetyl Histone H4K16 Quantification Kit (Colorimetric) is used for measuring acetylation of histone H4K16.

Description

Acetylation of histones, including histone H3 and H4, have 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 control of histone H4 acetylation at multiple sites. Acetylation of histone H4 at lysine 16 (H4-K16) reflects the hyperacetylated state in histone H4 and is strongly correlated with active states of genes. H4-K16 acetylation is also related to euchromatin and DNA repair, while hypoacetylation of H4-K16 is commonly found in human tumors. Histone H4-K16 acetylation may be increased by inhibition of HDACs and decreased by HAT inhibition; thus, quantitative detection of acetyl histone H4-K16 would provide useful information for better understanding epigenetic regulation of gene activation and for developing HAT or HDAC-targeted drugs. The Acetyl Histone H4K16 Quantification Kit (Colorimetric) provides a tool for measuring acetylation of histone H4-K16.

Applications

Acetyl Histone H4K16 Quantification Kit (Colorimetric) is suitable for specifically measuring histone H4-K16 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: (1) Store C3 and Standard Control at –20°C; (2) Store all other components at 4°C away from light. The kit is stable for up to 6 months from the shipment date, when stored properly.Note: Check if buffers, C1 and C2, contain salt precipitates before using. If so, warm (at

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room temperature or 37°C) and shake the buffers until the salts are re-dissolved.

Kit Components

C1 (10X Wash Buffer) 10 mlC2 (Antibody Buffer) 6 mlC3 (Detecting 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 2* 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 H4-K16 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 H4-K16.Strip microplate format makes the assay flexible: manual or high throughput.Simple, reliable, and consistent assay conditions.