

# Acetyl Histone H4K12 Quantification Kit (Fluorometric)

**Cat. No.** Kit-0023    **Lot. No.** (See product label)

## SPECIFICATION

<b>Product Overview</b>	Acetyl Histone H4K12 Quantification Kit (Fluorometric) is used for measuring acetylation of histone H4K12.
<b>Description</b>	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) provides a tool for measuring acetylation of histone H4K12.
<b>Applications</b>	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.
<b>Usage</b>	For research use only (RUO)
<b>Storage</b>	Upon receipt, store F4 and standard control at -20°C. Store all other components at

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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.

**Kit Components**

F1 (10X wash buffer) 10 ml F2 (antibody buffer) 6 ml F3 (detecting antibody, 1 mg/ml)\* 5 µl F4 (fluoro developer)\* 12 µl F5 (fluoro enhancer)\* 12 µl F6 (fluoro dilution) 4 ml Standard control (100 µg/ml)\* 10 µl Signal report solution\* 5 µl Signal enhancer\* 120 µl  
 well sample strips (with frame) 68 well standard control strips 2 User 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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