CREATIVE BIOMART®
Assay Kit

Histone H3 Phosphorylation (Ser28) Fluorometric Assay Kit

Product Information

Cat.No. Kit-0452

Product Overview

Histone H3 Phosphorylation (Ser28) Assay Kit (Fluorometric) is use for measuring phospho histone H3 (Ser28).

Description

The phosphorylation of histone H3 at serine 28 is conserved through eukaryotes, and an increase in phosphorylation has been shown to correlate with gene activation and cell growth. In vitro studies have shown that phosphorylation of histone H3 at both ser10 and Ser28 is coupled to dynamic acetylation of histone H3, where H3 phosphorylated at serine 28 had a higher steady state of acetylation than that of H3 phosphorylated at serine 10. It was observed that histone H3 phosphorylation at Ser28 is regulated by the cell cycle and has been used as a mitotic marker. As with phosphorylated ser10, H3 phosphorylation at Ser28 also play an important role for neoplastic cell transformation. Several protein kinases including aurora B, PPI, and PKC are responsible for histone H3 phosphorylation at Ser28. Inhibition or activation of these protein kinases can cause a change in intracellular histone H3 phosphorylation at Ser28. Detection of the change in histone H3 phosphorylation at Ser28 associated with the cell cycle, apoptosis, and inhibitor or activator treatment, would provide useful information for better understanding the pathological processes of some diseases and for protein kinase-targeted drug development. The Histone H3 Phosphorylation (Ser28) Assay Kit (Colorimetric) provides a tool for measuring phospho histone H3 (Ser28).

Applications

For specifically measuring histone H3 phophorylation at ser28 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 F3, F4, and standard control at –20°C away from light. Store all other

Tel: 1-631-559-9269 1-516-512-3133
Email:info@creative-biomart.org
Fax:1-631-938-8127
45-1 Ramsey Road, Shirley, NY 11967, USA

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components 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 redissolved.

Kit Components

F1 (10X wash buffer) 20 mlF2 (antibody buffer) 12 mlF3 (detection antibody, 1 mg/ml)* 10 µlF4 (fluoro developer)* 24 µlF5 (fluoro enhancer)* 24 µlF6 (fluoro dilution) 8 mlStandard control (100 µg/ml)* 20 µl8 well sample strips (with frame) 98 well standard control strips 3* For maximum recovery of the products, centrifuge the original vial prior to opening the cap.

Features & Benefits

Quick and efficient procedure, which can be finished within 3 hours.Innovative fluorometric assay without the need for radioactivity, electrophoresis, or chromatography.Specifically captures phospho histone H3 (ser28) with the detection limit as low as 0.5 ng/well.The control is conveniently included for the quantification of phosphorylated histone H3 (ser28).Strip microplate format makes the assay flexible: manual or high throughput.Simple, reliable, and consistent assay conditions.