CREATIVE BIOMART®
Assay Kit

# Histone H3 Phosphorylation (Ser10) Fluorometric Assay Kit

## Product Information

**Cat.No.** Kit-0450

**Product Overview**

Histone H3 Phosphorylation (Ser10) Assay Kit (Fluorometric) is use for measuring phospho histone H3 (Ser10).

**Description**

The phosphorylation of histone H3 at serine 10 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 Ser10 is coupled to acetylation at the nearby Lysine-14 residue. Histone H3 phosphorylation at Ser10 is also negatively impacted by histone methylation at lysine 9. It was observed that histone H3 phosphorylation at Ser10 is regulated by the cell cycle and has been used as a mitotic marker. H3 phosphorylation (Ser10) is critical for neoplastic cell transformation, while several protein kinases, including aurora B, PPI, and PKC are responsible for histone H3 phosphorylation at Ser10. Inhibition or activation of these protein kinases can cause a change in intracellular histone H3 phosphorylation at Ser10. Detection of the change in histone H3 phosphorylation at Ser10 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 (Ser10) Assay Kit (Fluorometric) provides a tool for measuring phospho histone H3 (Ser10).

**Applications**

For specifically measuring histone H3 phophorylation at ser10 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 should be stable for 6 months 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) 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 prior to opening the cap.

## Features & Benefits

Quick and efficient procedure, which can be finished within 3 hours.Innovative fluorometric assay with no need for radioactivity, electrophoresis, and chromatography.Specifically capturing phospho histone H3 (Ser10) with the detection limit as low as 2 ng/well.A control is conveniently included for quantification of phosphorylated histone H3 (Ser10).Strip microplate format makes the assay flexible: manual or high throughput.Simple, reliable, and consistent assay conditions.

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