Histone H3 Phosphorylation (Ser10) Colorimetric Assay Kit

Cat. No. Kit-0449 **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Histone H3 Phosphorylation (Ser10) Assay Kit (Colorimetric) 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 mitotic marker. H3 phosphorylation (Ser10) is critical for neoplastic cell transformation. 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 the change in intracellular histone H3 phosphorylation at Ser10. Detection in the change of histone H3 phosphorylation at Ser10 associated with cell cycle, apoptosis, and inhibitor or activator treatment, would provide useful information for better understanding the pathological process of some diseases and for protein kinase-targeted drug development.
Applications	The Histone H3 Phosphorylation (Ser10) Assay Kit (Colorimetric) provides a tool for measuring phospho histone H3 (Ser10).
Usage	For research use only (RUO)
Storage	Upon receipt, store C3 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 should be stable for 6 months when stored properly.Note: Check if buffers C1 and C2 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	C1 (10X wash buffer) 20 mlC2 (antibody buffer) 12 mlC3 (detection antibody, 1 mg/ml)* 10 µlC4 (color developer) 10 mlC5 (stop solution) 6 mlStandard control (100 ng/ml)* 20 µl8 well sample strips (with frame) 98 well standard control strips* 3* For maximum recovery of the products, centrifuge the original vial after thawing prior to opening the cap.
Features & Benefits	Quick and efficient procedure, which can be finished within 3 hours.Innovative colorimetric assay with no need for radioactivity, electrophoresis, or chromatography.Specifically captures phospho histone H3 (Ser10) with the detection limit as low as 2 ng/well.The control is conveniently included for quantification of the amount 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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