Histone H3 Phosphorylation (Ser28) Colorimetric Assay Kit

Cat. No. Kit-0451 **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Histone H3 Phosphorylation (Ser28) Assay Kit (Colorimetric) 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.

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

Usage	For research use only (RUO)
Storage	Upon receipt, store C3 and Standard control at –20°C. Store all other 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 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 redissolved.
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 (Ser28) with the detection limit as low as 2 ng/well.The control is conveniently included for quantification of the amount ofphosphorylated histone H3 (Ser28).Strip microplate format makes the assay flexible: manual or high throughput.Simple, reliable, and consistent assay conditions.

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