

## Histone Acetyltransferase Activity Colorimetric Assay Kit II

**Cat. No.** KITZ-063    **Lot. No.** (See product label)

### SPECIFICATION

#### Product Overview

Histone acetyltransferases (HATs) catalyze the acetylation of histone proteins by transferring an acetyl group from cofactor acetyl-CoA, and consequently regulate gene expression. The regulation is critical for cellular processes such as cell differentiation and proliferation. Our Histone Acetyltransferase Activity Colorimetric Assay Kit II offers rapid and sensitive detection of HAT activity or HAT inhibition in mammalian cells/tissue samples. Briefly, acetylation of a peptide substrate by HATs releases the free form of CoA, which can serve as a coenzyme of a NADH generating enzyme to produce NADH. The stoichiometric NADH production can be quantified by spectrophotometric analysis at 440 nm upon reacting with tetrazolium-1 (WST-1), a soluble tetrazolium dye. The HAT assay does not require radioactivity or chromatography and can be applied for kinetic studies. HATs' counteracting enzymes, histone deacetylases (HDACs), do not interfere with the assay, consequently crude nuclear extract or cell lysate samples can be used.

|                       |                                                                                                                                                             |
|-----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Size</b>           | 100 Tests                                                                                                                                                   |
| <b>Storage</b>        | -80°C                                                                                                                                                       |
| <b>Shipping</b>       | Dry ice                                                                                                                                                     |
| <b>Kit Components</b> | HAT assay buffer: 15 mL, -20°C<br>HAT positive control (cell lysate): 50 µL, -80°C<br>Developer (10X): 1 mL, -20°C<br>NADH generating enzyme: 0.1 mL, -80°C |

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WST-1: 4 mg, -20°C  
Substrates I: 1 mL, -20°C  
Substrates II: 1 mL, -80°C  
Cofactors: 1 mL, -20°C

**Materials Required  
but Not Supplied**

Cell lysis buffer  
96-well flat bottom plate