

Acetyl Coenzyme A Assay Kit

Cat. No. KITZ-065 **Lot. No.** (See product label)

SPECIFICATION

Product Overview

Acetyl CoA is widely present in animals, plants, microorganisms and cultured cells. It is an important intermediate metabolite produced in the metabolism of energy substances in organisms. It is a pivotal substance in the metabolism of energy substances in the body. The three major nutrients of sugar, fat and protein converge into a common metabolic pathway - tricarboxylic acid cycle and oxidative phosphorylation through acetyl CoA. Through this pathway, they are completely oxidized to produce carbon dioxide and water, releasing energy for ATP synthesis. Malate dehydrogenase can catalyze malate and NAD to produce oxaloacetate and NADH. Citrate synthase can catalyze acetyl CoA and oxaloacetate to produce citric acid and CoA. Using the coupling reaction of malate dehydrogenase and citrate synthase, the acetyl CoA content is proportional to the generation rate of NADH, and the rising rate of absorbance at 340nm reflects the level of acetyl CoA content.

Size

100 assays

Storage

Stored at -20°C

Kit Components

Reagent One: Liquid 100mL × 1 bottle, store at 4°C. Reagent Two: Powder × 1 vial, store at -20°C. Before use, add 250μL of Reagent Five to dissolve completely; any unused reagent should be aliquoted and stored at -20°C, avoiding repeated freeze-thaw cycles. Reagent Three: Liquid 10μL × 1 vial, store at 4°C. Before use, add 250μL of Reagent Five to dissolve completely; any unused reagent should be aliquoted and stored at -20°C, avoiding repeated freeze-thaw cycles. Reagent Four: Powder × 1 bottle, store at -20°C. Before use, add 22.5mL of Reagent Five to

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dissolve completely; any unused reagent should be aliquoted and stored at -20°C, avoiding repeated freeze-thaw cycles. Reagent Five: Liquid 30mL × 1 bottle, store at 4°C.

**Materials Required
but Not Supplied**

UV spectrophotometer/microplate reader, water bath, benchtop centrifuge, adjustable pipette, micro-quartz cuvettes/96-well plates, mortar, ice, and distilled water.

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