

Phosphoenolpyruvate Carboxylase(PEPC)assay kit

Cat. No. KITZ-073 **Lot. No.** (See product label)

SPECIFICATION

Product Overview

Phosphoenolpyruvate carboxylase (PEPC, EC 4.1.1.31) is a key enzyme in photosynthetic carbon metabolism of C4 plants and CAM plants, and plays a role in fixing CO₂ in the environment. It catalyzes the irreversible reaction of PEP and CO₂ carboxylation to form oxaloacetate. This enzyme plays an important role in photosynthetic carbon assimilation, respiration and material metabolism. PEPC catalyzes phosphoenolpyruvate (PEP) and CO₂ to produce oxaloacetate, and malate dehydrogenase further catalyzes oxaloacetate and NADH to produce malic acid and NAD⁺. The activity of PEPC enzyme can be calculated by measuring the reduction rate of NADH at 340nm.

Size

96 Samples

Storage

-20°C

Shipping

Ice pack

Kit Components

Extraction Liquid: Liquid, 100mL × 1 bottle, store at 4°C.

Reagent One: Powder, mg × 2 vial, store at -20°C. Shake or centrifuge before use to bring the reagent to the bottom, then add 1.1mL of distilled water to dissolve. Any unused reagent should be aliquoted and stored at -20°C. Do not freeze and thaw repeatedly, and use within three days.

Reagent Two: Liquid, 15mL × 1 bottle, store at 4°C.

Reagent Three: Powder, mg × 1 vial, store at -20°C. Shake or centrifuge before use to bring the reagent to the bottom, then add 2.1mL of distilled water to dissolve for

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later use.

**Materials Required
but Not Supplied**

Microplate reader, 96-well plate, benchtop centrifuge, adjustable pipette, mortar, ice,
and distilled water.

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