CREATIVE BIOMART®
Assay Kit

Rubisco-Bisphosphate Carboxylase/Oxygenase (Rubisco) Activity Assay Kit

Product Information

Product Overview

Significance: Rubisco is a key enzyme in plant photosynthesis, controlling CO₂ fixation and regulating carbon flow through the Calvin cycle and photorespiration. Its activity directly influences photosynthetic rate.
Principle: (1) Rubisco catalyzes the reaction of one molecule of RuBP with CO₂ to generate two molecules of 3-phosphoglycerate (PGA). (2) PGA is converted to glyceraldehyde-3-phosphate via phosphoglycerate kinase and glyceraldehyde-3-phosphate dehydrogenase, coupled with NADH oxidation to NAD⁺. (3) The decrease in absorbance at 340 nm due to NADH oxidation reflects Rubisco carboxylase activity.

Size

50t/48s

Storage

Store at -20 °C. Shelf life: 6 months.

Detection method Ultraviolet Spectrophotometry

Materials Required but Not Supplied

UV-Vis spectrophotometer, bench-top centrifuge, water bath, adjustable micropipettes, 1 mL quartz cuvettes, mortar and pestle, ice, distilled water.

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