CREATIVE BIOMART®
Assay Kit

Glycogen Synthase (GCS) Activity Assay Kit

Product Information

Product Overview

Principle of Measurement: GCS catalyzes the reaction between UDP-glucose and glucose residues to form glycogen and UTP. Pyruvate kinase and lactate dehydrogenase subsequently catalyze NADH oxidation to NAD⁺. The decrease in NADH absorbance at 340 nm reflects GCS activity.
Significance of Measurement: Glycogen synthase (GCS, EC 2.4.1.11) catalyzes glycogen elongation through a-1,4-glycosidic bonds and is the rate-limiting enzyme of glycogen synthesis in liver and muscle. It is a major target enzyme of insulin and plays an essential role in glucose metabolism regulation and maintenance of blood glucose homeostasis.

Size

100t/96s

Storage

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

Synonyms

GCS Kit

Detection method Spectrophotometer/Microplate Reader

Technical Notes

For measurements using a 96-well plate, a 96-well UV plate must be used.

Materials Required but Not Supplied

Spectrophotometer or microplate reader, benchtop centrifuge, adjustable pipettes, quartz cuvettes or 96-well plates, mortar, ice, and distilled water

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