CREATIVE BIOMART®
Assay Kit

Formate Assay Kit

Product Information

Cat.No. Kit-2073

Product Overview

The formate assay kit is based on formate dehydrogenase catalyzed oxidation of formate, which generates carbon dioxide and NADH that reduces a formazan (MTT) dye. The intensity of the reduced MTT, measured at 565 nm, is directly proportional to formate concentration in the sample.

Size

100 tests

Description

FORMATE (HCOO-) is the anion derived from formic acid, the simplest carboxylic acid. It is also the metabolic byproduct of formaldehyde metabolism in our body, and the eventual metabolic byproduct of methanol which is first broken down to formaldehyde. At high levels, formate is neurotoxic to the central nervous system and can cause blindness, coma, and death. Although naturally present in the body at low levels, elevated levels of formate may be used as an indicator of formaldehyde exposure and methanol poisoning.

Applications

Direct determination of formate concentrations in biological (e.g. urine, blood, etc.) and other samples.

Storage

The kit is shipped on ice. Store all components at -20°C upon receiving. Shelf life: 6 months after receipt.

Kit Components

Assay Buffer: 10 mL MTT/NAD: 1 mLEnzyme A: 120 µL Enzyme B: 120 µLStandard: 0.5 mL 20 mM Formate

Detection method OD565nm

Compatible Sample Types

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

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Formate Assay Kit

Urine, Serum etc

Features & Benefits

• Fast and sensitive. Use of 10 µL sample. Linear detection range 0.050 to 5 mM Formate in 96-well plate assay.• Convenient. The procedure involves adding a single working reagent, and reading the absorbance after 60 minutes. Room temperature assay. No 37°C heater is needed. • High-throughput. "Add-mix-read" type assay. Can be readily automated as a high-throughput 96-well plate assay for thousands of samples per day.

Assay time

Approximately 60 min

Sensitivity

Detection Limit: 50 μM

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