CREATIVE BIOMART®
Assay Kit

# Fluoro Lactate Detection Kit

## Product Information

**Cat.No.** Kit-0497

**Product Overview**

In the assay, lactate oxidase (LOX) catalyzes the oxidation of L-lactate to pyruvate, along with the concomitant reduction of hydrogen peroxide (H2O2). The detection utilizes a non-fluorescent detection reagent, which is oxidized in the presence of horse radish peroxidase (HRP) and LOX to produce its fluorescent analog. Fluoro Lactate assay provides a reliable, sensitive fluorimetric method for the quantification of lactate in biological samples such as serum, plasma, urine, and tissue extracts.

**Description**

Lactate is an intermediate product of carbohydrate metabolism. Of the two forms of Lactate, D- and L-, the L-lactate is predominant isomer found in biological systems. L-lactate is formed during the anaerobic glycolysis by conversion of pyruvate to L-lactate by lactate dehydrogenase. Lactate level is an indicator for tissue oxygen demand and utilization. Abnormally high lactate levels are associated with diseases such as diabetes and lactate acidosis. Fluoro Lactate assay is a lactate oxidase-based method for detecting L-lactate in biological samples such as serum, plasma, blood, urine, and tissue extract.

**Usage**

1. For research use only. Not for use in diagnostic procedures.2. Practice safe laboratory procedures by wearing protective clothing and eyewear.3. Glutathione (reduced form GSH) may interfere with the assay.See Technical note 3.

**Storage**

1. Short term (several weeks): Kit: see individual components.

**Kit Components**

Reagent-Storage Temperature1. Lactate Standard 4mM: 500µl 2-8°C;2. Horseradish Peroxidase: 18.9 Units 2-8°C;3. 5X Reaction Buffer: 25 mL 2-8°C;4. Detection Reagent: 1 Vial -20°C;5. Reaction Enzyme Mix: 1 Vial-1.1mL -20°C

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**Features & Benefits**

1. Highly effective and stable fluorescent assay for L-lactate.2. Simple and fast assay-add the reagent directly to your experimental samples. Plate can be incubated and read in 15-30 min.3. Works for serum, plasma and tissue extract.

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