

Lactate Assay Kit

Lactate Assay Kit (Fluorometric)

CATALOG #
AAA44637

PRODUCT SYNONYMS

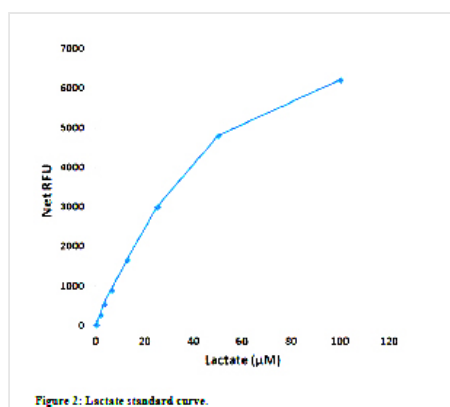
Lactate; Lactate Assay Kit (Fluorometric); Lactate assay kit

PRODUCT SPECIFICATIONS

Preparation and Storage

Upon receipt, store the Lactate Standard, Fluorometric Probe, HRP, and Lactate Oxidase at -20 degree C. The Fluorescence Probe is light sensitive and must be stored accordingly. Avoid multiple freeze/thaw cycles. Store the 10X Assay Buffer at room temperature.

IMAGES



Standard Curve (Sample)

ADDITIONAL INFORMATION

Related Product Information for Lactate assay kit	Principle of the Assay: Lactate Assay Kit measures lactate within biological samples. Lactate is oxidized by lactate oxidase into pyruvate and hydrogen peroxide. The hydrogen peroxide is then detected with a highly specific Fluorometric probe. Horseradish peroxidase catalyzes the reaction between the probe and hydrogen peroxide, which bind in a 1:1 ratio. Samples and standards are incubated for 30-45 minutes and then read with a standard 96-well Fluorometric plate reader (Figure 1). Samples are compared to a known concentration of lactate standard within the 96-well microtiter plate format. Background/Introduction: Lactic Acid is an alpha hydroxyl acid that can ionize a carboxyl proton to yield the lactate ion, the latter of which exists as two optical isomers L-Lactate and D-Lactate. The enzyme lactate dehydrogenase catalyzes the conversion of pyruvate to lactate in animals during the process of fermentation. Depending on the levels of exercise, blood levels of lactate can vary between 1 and 20 mM. In medicine, lactate is a component of intravenous fluids such as Hartmann's solution. These fluids are often used when blood loss occurs due to surgery or injury. In the brain, lactate, like glucose, is thought to be one of the main sources of energy. High levels of lactate have been found in the extracellular fluid surrounding neurons due to the high metabolic activity of glial cells. In the food industry, lactic acid is found in cheeses, milk, and various breads. In winemaking, lactic acid bacteria are used to reduce malic acid levels and therefore decrease the sharpness in flavor. Finally, in the detergent industry lactic acid has been used as an anti-bacterial agent as well as a soap-scum removal agent and descaler. Lactate Assay Kit (Fluorometric) is a simple fluorometric assay that measures the amount of total lactate present in biological samples in a 96-well microtiter plate format. Each kit provides sufficient reagents to perform up to 100 assays, including blanks, lactate standards and unknown samples. Sample lactate concentrations are determined by comparison with a known lactate standard. The kit has a detection sensitivity limit of 1.5 uM L-Lactate.
Product Categories/Family for Lactate assay kit	Metabolism Research; Cellular Metabolism; Lactate Assays

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/assay-kits/lactate/44637>