



EnzyChrom™ Lactate Assay Kit

Lactate is generated by lactate dehydrogenase (LDH) under hypoxic or anaerobic conditions. Monitoring lactate levels is, therefore, a good indicator of the balance between tissue oxygen demand and utilization and is useful when studying cellular and animal physiology.

Simple, direct and automation-ready procedures for measuring lactate concentration are very desirable. BioAssay Systems' EnzyChrom™ lactate assay kit is based on lactate dehydrogenase catalyzed oxidation of lactate, in which the formed NADH is coupled to the formazan (MTT)/phenazine methosulfate (PMS) Reagent. The intensity of the product color, measured at 565 nm, is proportionate to the lactate concentration in the sample.

KEY FEATURES

Sensitive and accurate. Detection limit of 0.05 mM and linearity up to 2 mM Lactate in 96-well plate assay.

Convenient. The procedure involves adding a single working reagent, and reading the optical density at time zero and at 20 min. Room temperature assay. No 37°C heater is needed.

High-throughput. Can be readily automated as a high-throughput 96-well plate assay for thousands of samples per day.

APPLICATIONS

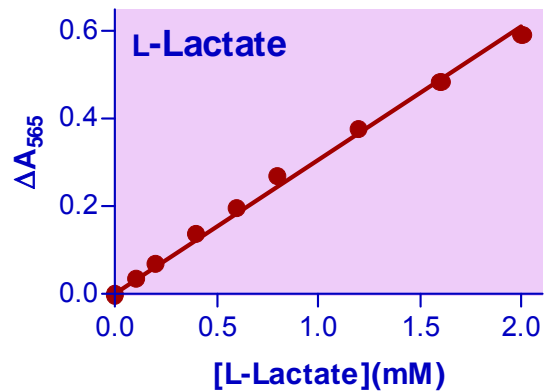
Direct Assays: lactate in serum, plasma, and cell media samples.

PRODUCT INFORMATION:

EnzyChrom™ Lactate Assay Kit ECLC-100

Each kit is sufficient for 100 assays in 96-well plate. Kit includes:

- 1 x 6 mL Assay Buffer
- 1 x 1 mL NAD Solution
- 1 x 2 mL PMS Solution
- 1 x 2 mL MTT Solution
- 1 x 120 µL Enzyme (LDH)
- 1 x 1 mL Lactate Standard



Standard Curves in 96-well plate assay

REFERENCES:

- [1]. Babson, AL and Babson, SR. (1973) Kinetic Colorimetric Measurement of Serum Lactate Dehydrogenase Activity. Clin Chem. 19(7):766-9.
- [2]. Karlsen RL, Norgaard L, Guldbrandsen EB (1981). A rapid method for the determination of urea stable lactate dehydrogenase on the 'Cobas Bio' centrifugal analyser. Scand J Clin Lab Invest. 41(5):513-6.
- [3]. Coley HM, Lewandowicz G, Sargent JM, Verrill MW (1997). Chemosensitivity testing of fresh and continuous tumor cell cultures using lactate dehydrogenase. Anticancer Res. 17(1A):231-6.