Lactate Dehydrogenase (LDH) Assay Kit (Fluorometric) ab197000

Overview

Product name: Lactate Dehydrogenase (LDH) Assay Kit (Fluorometric)
Detection method: Fluorescent
Sample type: Saliva, Other biological fluids, Adherent cells, Suspension cells, Purified protein
Assay type: Enzyme activity
Sensitivity: 1 uU/ml
Species reactivity:
- Reacts with: Human
- Predicted to work with: Mammals

Product overview:
Lactate Dehydrogenase (LDH) Assay Kit (Fluorometric) (ab197000) provides a quick and easy method for monitoring Lactate Dehydrogenase (LDH) activity in a wide variety of samples. In this assay, LDH converts lactate into pyruvate and NADH, which reacts with the specific fluorescent probe to generate an intense fluorescent product (Ex/Em = 535/587 nm).

This kit is simple, highly sensitive and high-throughput adaptable and can detect LDH activity as low as 1 µU/mL.

Notes:
Lactate dehydrogenase (LDH, L-Lactate NAD oxidoreductase, EC 1.1.1.27) is an ubiquitous enzymes among vertebrate organisms which catalyzes the reversible conversion of pyruvate to lactate, with concomitant conversion of NADH and NAD+. LDH is cytoplasmic in its cellular location and in any one tissue is composed of one or two of five possible isoenzymes. During tissue damage, LDH is released into the bloodstream; therefore it serves as a marker for various diseases and common injuries.

Properties

Storage instructions: Store at -20°C. Please refer to protocols.

<table>
<thead>
<tr>
<th>Components</th>
<th>Identifier</th>
<th>500 tests</th>
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<tbody>
<tr>
<td>LDH Assay Buffer</td>
<td>1 x 110ml</td>
<td></td>
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<tr>
<td>LDH Substrate Mix</td>
<td>1 vial</td>
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Lactate dehydrogenase (LDH) is an oxidoreductase which catalyses the interconversion of pyruvate and lactate with concomitant interconversion of NADH and NAD+. As it can also catalyze the oxidation of hydroxybutyrate, it is occasionally called Hydroxybutyrate Dehydrogenase (HBD). There are 5 different isoenzymes of LDH, LDH1 to LDH5, each composed of 4 subunits which may be of 2 different types - M and H subunits. These subunits are encoded by two different genes: The M subunit is encoded by gene LDHA whilst the H subunit is encoded by LDHB. Usually LDH2 is the predominant form in the serum. An LDH1 level higher than the LDH2 level suggests myocardial infarction (damage to heart tissues releases heart LDH, which is rich in LDH1, into the bloodstream).

Cellular localization

Cytoplasmic
Relative LDH Activity was calculated in lysates prepared from rat liver (0.037 µg protein), Jurkat cells (0.053 µg protein), and Human serum (0.2 µg protein).

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