

Product datasheet

Lactate Dehydrogenase (LDH) Assay Kit (Fluorometric) ab197000

[13 References](#) [3 Images](#)

Overview

Product name	Lactate Dehydrogenase (LDH) Assay Kit (Fluorometric)
Detection method	Fluorescent
Sample type	Urine, Serum, Plasma, Other biological fluids, Adherent cells, Suspension cells, Tissue Extracts, Cell culture media
Assay type	Enzyme activity
Sensitivity	1 uU/ml
Assay time	0h 20m
Species reactivity	Reacts with: Mammals, Other species
Product overview	<p>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).</p> <p>This kit is simple, highly sensitive and high-throughput adaptable and can detect LDH activity as low as 1 µU/mL.</p> <p>LDH assay protocol summary:</p> <ul style="list-style-type: none"> - add samples and standards to wells - add reaction mix - analyze with microplate reader every 2-3 min for 10-30 min
Notes	<p>This product is manufactured by BioVision, an Abcam company and was previously called K730 PicoProbe™ Lactate Dehydrogenase Activity Assay Kit. K730-500 is the same size as the 500 test size of ab197000.</p> <p>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.</p>
Platform	Microplate reader

Properties

Storage instructions

Store at -20°C. Please refer to protocols.

Components	500 tests	500 tests
Developer Mix I	1 vial	1 vial
LDH Assay Buffer	1 x 110ml	1 x 110ml
LDH Positive Control	1 vial	1 vial
NADH Standard I	1 vial	1 vial
PicoProbe (1.5 ml)	1 x 1.4ml	1 x 1.4ml

Pathway

Fermentation; pyruvate fermentation to lactate; (S)-lactate from pyruvate: step 1/1.

Involvement in disease

Defects in LDHA are the cause of glycogen storage disease type 11 (GSD11) [MIM:612933]. A metabolic disorder that results in exertional myoglobinuria, pain, cramps and easy fatigue.

Sequence similarities

Belongs to the LDH/MDH superfamily. LDH family.

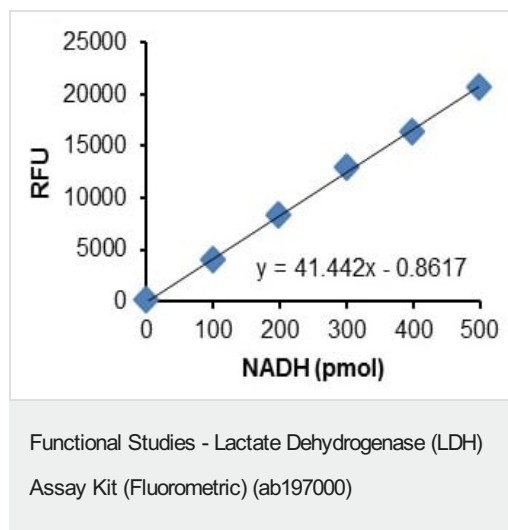
Post-translational modifications

ISGylated.

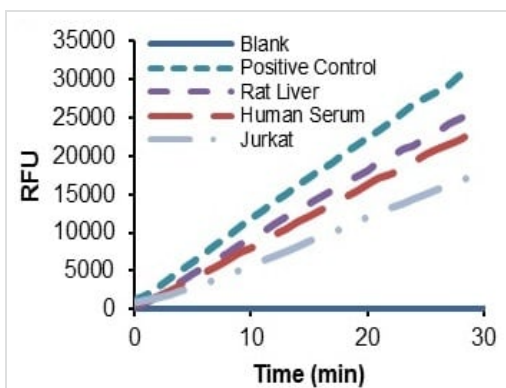
Cellular localization

Cytoplasm.

Images

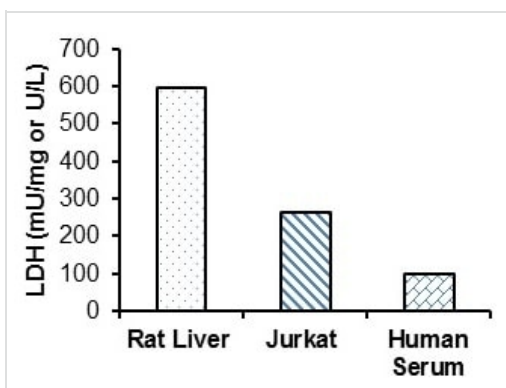


Typical NADH Standard Curve obtained following assay protocol.



Kinetic measurement of Lactate Dehydrogenase activity in a range of biological samples.

Functional Studies - Lactate Dehydrogenase (LDH)
Assay Kit (Fluorometric) (ab197000)



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

Functional Studies - Lactate Dehydrogenase (LDH)
Assay Kit (Fluorometric) (ab197000)

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