

Product Name: LDH-Cytotoxicity Colorimetric Assay Kit Revision Date: 10/25/2024



K2025 LDH-Cytotoxicity Colorimetric Assay Kit

Kit Contents		
Components	K2025-500 500 assays	Part Number
Stop Solution IV	1 x 5 mL	K2025-C-1
Lysis Buffer II	1 x 5 mL	K2025-C-2
Substrate Mix	1 x 1 Vial	K2025-C-3
LDH Positive Control	1 x 1 Vial	K2025-C-4
LDH Assay Buffer	1 x 50 mL	K2025-C-5

Introduction

LDH Assay Kit is a no-wash assay with one incubation step of 30 min at room temp. LDH, in cell culture supernatant samples, oxidizes lactate to generate NADH. NADH reacts with WST, with a colorimetric readout (450 nm). The LDH signal is proportional to the amount of cytotoxicity.

Individual kit components also available for purchase with a minimum order of 20 units. Contact us to discuss your needs.

Key facts

Detection method

Colorimetric

Sample types

Cell culture media

Assay type

Enzyme activity (quantitative)

Assay time

1h

Assay Platform

Microplate reader



LDH Assay Kit (Cytotoxicity) uses WST for the fast and sensitive detection of LDH released from damaged cells.

The LDH assay, also known as LDH release assay, is a cell death / cytotoxicity assay used to assess the level of plasma membrane damage in a cell population. Lactate dehydrogenase (LDH) is a stable enzyme, present in all cell types, which is rapidly released into the cell culture medium upon damage of the plasma membrane. LDH is the most widely used marker used to run a cytotoxicity assay.

The LDH assay protocol is based on an enzymatic coupling reaction: LDH released from the cell oxidizes lactate to generate NADH, which then reacts with WST to generate a yellow color. The intensity of the generated color correlates directly with the number of lyzed cells.

Only 10µl of culture medium is required for the assay, and thus the background from serum and culture medium is significantly reduced. Cells can be cultured in regular 10% serum containing medium; no reducing serum or special medium is required for the assay.

In addition, since WST is very stable, the reaction can be read multiple times and can be stopped at any time point during the reaction.

LDH activity can be easily quantified by spectrophotometer or plate reader at OD450nm.

LDH assay protocol summary:

- transfer 10µl culture medium into new plate
- add LDH reaction mix and incubate for 30 min at room temp

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Caution

FOR RESEARCH PURPOSES ONLY.

NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

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Specific storage and handling information for each product is indicated on the product datasheet. Most APExBIO products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Short term storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.

APExBIO Technology

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