Product name: LDH Assay Kit / Lactate Dehydrogenase Assay Kit (Colorimetric) ab102526

**Detection method**: Colorimetric

**Sample type**: Cell culture supernatant, Urine, Serum, Plasma, Other biological fluids, Tissue Extracts

**Assay type**: Enzyme activity (quantitative)

**Sensitivity**: > 1 mU/ml

**Range**: 1 mU/ml - 100 mU/ml

**Assay time**: 0h 30m

**Product overview**: Lactate Dehydrogenase (LDH) Assay Kit (Colorimetric) ab102526 quantifies LDH activity in a variety of samples such as serum or plasma, cells, and culture medium.

In the LDH assay protocol, LDH reduces NAD to NADH, which then interacts with a specific probe to produce a color (OD max = 450 nm). The kit can detect 1 - 100 mU/mL of LDH directly in samples. The assay is quick, convenient, and sensitive.

**LDH assay protocol summary:**
- add samples and standards to wells
- add reaction mix
- analyze every 2-3 min for at least 30 min with microplate reader in kinetic mode at 37ºC

**Notes**: As LDH is a fairly stable enzyme, the LDH assay is widely used as a marker for damage to cells and tissues, i.e. to measure damage that is severe enough to allow LDH to leak from the cell.

**Platform**: Microplate reader

**Storage instructions**: Store at -20ºC. Please refer to protocols.

### Components

<table>
<thead>
<tr>
<th>Components</th>
<th>Identifier</th>
<th>500 tests</th>
</tr>
</thead>
<tbody>
<tr>
<td>LDH Assay Buffer</td>
<td>NM</td>
<td>1 x 50ml</td>
</tr>
<tr>
<td>LDH Positive Control (lyophilized)</td>
<td>Red</td>
<td>1 vial</td>
</tr>
</tbody>
</table>
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
Cellular necrosis was measured as LDH release after cisplatin treatment for 24 h and 48 h using ab102526. The release of LDH was apparently increased at 24 and 48 h after cisplatin treatment.

Kinetic profiles of approx 0.5 mU of a sample of pure LDH (Positive Control) and 2 μL frozen human serum using buffer as a background control.

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</tr>
</thead>
<tbody>
<tr>
<td>LDH Substrate Mix</td>
<td>Amber</td>
<td>1 vial</td>
</tr>
<tr>
<td>NADH Standard</td>
<td>Yellow</td>
<td>1 vial</td>
</tr>
</tbody>
</table>
Functional Studies - Lactate Dehydrogenase
Colorimetric Assay Kit (ab102526)

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