D-Lactic Acid Quick Test Strips

Product Datasheet | SKU BA0279

Description

D-lactic acid, or D-lactate, is generated by lactic acid dehydrogenase under hypoxic or anaerobic conditions and is produced in only minor quantities in animals, so its presence in animal samples can indicate bacterial infection. As a specific indicator of bacterial fermentation, D-lactic acid can also be used to gauge the freshness of milk, meat and fruit juices, while elevated levels in wine signal lactic acid bacteria contamination. The QuantiQuik test strips are based on D-lactic acid dehydrogenase catalysed oxidation of D-lactic acid, in which the NADH formed reduces a chromogenic reagent. The intensity of the resulting product colour is directly proportional to the D-lactic acid concentration in the sample.

Specifications

Detection Method	Semi-quantitative colorimetric test strip; reaction pad colour is compared against the supplied D-Lactic Acid colour chart
Detection Range	Semi-quantitative determination of D-lactic acid, read directly against the provided colour chart and multiplied by the sample dilution factor
Sample Type	Wine, fruit juice, beer, milk, yogurt and other food and beverage samples; also suitable for animal samples
Species Reactivity	All
Assay Time	Approximately 10 minutes (5 second dip plus 5 minute colour development)
Kit Size	10 tests
Equipment Required	Test Stip
Storage	The kit is shipped and stored at room temperature. Keep strips dry and out of direct sunlight. For long-term storage (> 30 days), keep the Sample Development Tubes at 4 C or below.
Shelf Life	6 months upon receipt.
Shipping	Room Temperature

Kit Components

Component	Quantity	Storage
Test Strips	10	Room temperature; keep dry and out of direct sunlight
Sample Development Tubes (400 uL Development Reagent per tube)	10	Room temperature; 4 C or below for long-term storage (> 30 days)
Instruction Manual	1	Room temperature

Ordering Information

Assay Genie Cat. No.	Pack Size
BA0279	10 tests

Assay Procedure

Note: This is a sample protocol. Protocols are batch/lot specific - always follow the instructions supplied with your kit.

1. Prepare and dilute the sample as required: dilute wine samples 21-fold, other acidic samples such as fruit juice and beer 5-fold, and homogenised milk 2-fold; certain samples such as yogurt require additional treatment.
2. Unscrew the cap of one of the Sample Development Tubes.
3. Using the appropriate transfer pipette (20 uL for a 21-fold dilution, 100 uL for a 5-fold dilution or 400 uL for a 2-fold dilution), carefully transfer the sample into the Sample Development Tube.
4. Replace the cap, securely close the vial and invert it a couple of times to mix the diluted sample.
5. Unscrew the cap and dip in one of the test strips, fully submerging the yellow reaction pad at the end of the strip; leave submerged for 5 seconds, then remove and shake a couple of times to remove any clinging drops.
6. Allow the colour to develop on the strip for 5 minutes.
7. Compare the colour of the reaction pad with the provided D-Lactic Acid colour chart and multiply the chart concentration by the dilution factor used (2, 5 or 21).

Calculation

D-Lactic Acid concentration = (concentration read from the colour chart) x (dilution factor used: 2, 5 or 21).

Notes

- Most samples require a 2-fold, 5-fold or 21-fold dilution prior to testing.
- Keep strips dry and out of direct sunlight at all times.
- When using a transfer pipette, remove the pipette from the Sample Development Tube before releasing the bulb.
- Reagents are for research use only. Refer to the MSDS for detailed safety information.

Technical specifications are based on manufacturer documentation and may be updated. Protocols shown are summaries - always follow the instructions supplied with your kit/lot.