

QuantiQuik™ L-Lactic Acid Quick Test Strips

Catalog Number: QQLLAC10

DESCRIPTION

L-LACTIC ACID, or L-lactate, is generated by lactate dehydrogenase (LDH) under hypoxic or anaerobic conditions. L-lactic acid is added to many foods and beverages to give it a tart flavor. Increased levels of L-lactic acid in milk, egg, and fruit juices can be an indication of spoilage. In the wine industry, increasing levels of L-lactic acid and the decreasing levels of L-malic acid are monitored (Malolactic fermentation). In this process, the overall acidity of the wine is reduced and can lead to the improvement of the flavor of the wine.

BioAssay Systems' QuantiQuik™ L-Lactic Acid Test Strips are based on L-lactate dehydrogenase catalyzed oxidation of L-lactate in which the formed NADH reduces a chromogenic reagent. The intensity of product color is directly proportional to L-lactate concentration in the sample.

Product Information

Catalog No: QQLLAC10

Number of Tests: 10 per package (other sizes available upon request).

Contents:

- Ten Test Strips
- Ten Sample Development Tubes (400 μ L Development Reagent per tube)
- Instruction Manual

Shipping/Storage: The kit is shipped and stored at room temperature. Keep strips dry and out of direct sunlight. For long term storage (> 30 days), we recommend keeping the Sample Development Tubes at 4°C or below.

Expiry: 6 months upon receipt.

Product Accessories

Most samples require either a 2 \times , 5 \times , or 21 \times dilution. These dilutions can be performed either with a pipetteman if available or single use transfer pipettes can be purchased separately. We offer the following:

- Ten 20 μ L Transfer Pipettes (for 21 \times sample dilutions), Cat. No. TP20
- Ten 100 μ L Transfer Pipettes (for 5 \times sample dilutions), Cat. No. TP100
- Ten 400 μ L Transfer Pipettes (for 2 \times sample dilutions), Cat. No. TP400

TEST PROCEDURE

Samples: For wine samples we strongly recommend diluting samples 21 \times . Other acidic samples (fruit juice, beer, etc.)

should be diluted 5 \times . Homogenized milk should be diluted 2 \times . Other samples such as yogurt require some extra treatment. Please see our website, www.bioassaysys.com, for the treatment instructions for these samples.

1. Unscrew the cap of one of the Sample Development tubes.
2. For samples requiring a 21 \times dilution, use a 20 μ L transfer pipette (a pipetteman can also be used if available), and carefully transfer 20 μ L of sample to the Sample Development Tube. For samples requiring a 5 \times dilution, use a 100 μ L transfer pipette and carefully transfer 100 μ L of sample to the Sample Development Tube. For samples requiring a 2 \times dilution, use a 400 μ L transfer pipette and carefully transfer 400 μ L of sample to the Sample Development Tube. (To use the transfer pipette: Squeeze top bulb of pipette and dip into sample and release bulb to take up sample. Next, place pipette tip into the Development tube and squeeze bulb again to release sample. *Important:* remove pipette from Sample Development Tube before releasing bulb).
3. Replace cap, securely close the vial and invert the vial a couple of times to mix diluted sample.
4. Unscrew cap and dip in one of the test strips making sure to fully submerge the yellow reaction pad at the end of the strip. Leave submerged for 5 seconds and then take out and shake a couple times to remove any drops clinging to strip.
5. Let color develop on strip for 5 minutes.
6. Compare the color of the reaction pad of the strip with the provided L-Lactic Acid Chart. Multiply the Concentration in the chart by the dilution used (i.e. 2, 5, or 21).

PUBLICATIONS

1. Saha, T et al. (2021). Wearable osmotic-capillary patch for prolonged sweat harvesting and sensing. *ACS Applied Materials & Interfaces*, 13(7): 8071-8081.
2. Li, F et al. (2021). *Limosilactobacillus balticus* sp. Nov., *Limosilactobacillus agrestis* sp. Nov., *Limosilactobacillus albertensis* sp. Nov., *Limosilactobacillus rudii* sp. Nov. And *Limosilactobacillus fastidiosus* sp. Nov., five novel *Limosilactobacillus* species isolated from the vertebrate gastrointestinal tract, and proposal of six subspecies of *Limosilactobacillus reuteri* adapted to the gastrointestinal tract of specific vertebrate hosts. *International Journal of Systematic and Evolutionary Microbiology*, 71(2).