Technical Manual

QuickDazzle Malic Acid Quick Test Strips

Catalogue Code: BA0177

Pack Size: 10 Strips per pack

Research Use Only

DESCRIPTION

L-MALIC ACID, or L-malate, is a dicarboxylic acid that is made by all living organisms and plays an important role in the Calvin and Krebs Cycle. Malic acid is frequently used in food and beverage industries as an additive in products such as wine, beer, candies, etc. It can be used as an acidity regulator, preservative, or simply added for flavor. In the wine industry, decreasing levels of L-malic acid and increasing levels of L-Lactic Acid are monitored during malolactic fermentation. As L-malic acid is converted to L-lactic acid, the overall acidity of the wine is reduced which can lead to the improvement of the flavor of the wine.

The Assay Genie QuickDazzle Malic Acid Quick Test Strips are based on L-malate dehydrogenase catalyzed oxidation of L-malic acid in which the formed NADH reduces a chromogenic reagent. The intensity of the product color is directly proportional to the L-malic acid concentration in the sample.

Product Information

Catalog No: BA0177

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

Contents:

- Ten Test Strips
- Ten Sample Development Tubes (400 µL Development Buffer 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 5✕ or 21✕ 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 µL Transfer Pipettes (for 21✕ sample dilutions), Cat. No. TP20
- Ten 100 µL Transfer Pipettes (for 5✕ sample dilutions), Cat. No. TP100

TEST PROCEDURE

Samples: For white wine samples, especially those that have not gone through malolactic fermentation, we strongly recommend diluting samples 21✕. Red wine and other acidic samples (fruit juice, beer, etc.) should be diluted 5✕. Homogenized milk can be tested undiluted. 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✕ dilution, use a 20 µL transfer pipette (a pipetteman can also be used if available), and carefully transfer 20 µL of sample to the Sample Development Tube. For samples requiring a 5✕ dilution, use a 100 µL transfer pipette and carefully transfer 100 µL 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 10 minutes.

6. Compare the color of the reaction pad of the strip with the provided L-Malic Acid Chart below. Multiply the Concentration in the chart by the dilution used (i.e. 5 or 21).

AssayGenie

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