CREATIVE BIOMART®
Assay Kit

D-Malic acid Assay Kit

Product Information

Cat.No. Kit-2063

Product Overview

Enzymatic method for the determination of D-malic acid. Based on the spectrophotometric measurement of NADH formed through the action of D-malate dehydrogenase (D-LDH).

Size

100 tests

Description

D-Malic acid practically does not occur in nature; it is a metabolite produced only by some microorganisms. Analysis of freshly pressed fruit juices shows the presence of D-malic acid at the detection limit. Hence, the D-Malic legal limit for fruit and fruit juices is recommended as 10 mg/L. D-Malic acid is a component of the (racemic) D-/L-malic acid as prepared chemically. Since natural products are practically free of D-malic acid, the detection of D-malic acid could indicate that D-/L-malic acid has been added e.g. to wine or to fruit juice. This may be allowed or forbidden and thus the legal situation in the different countries has to be taken into consideration.

Applications

This rapid and simple stereo-specific enzymatic method is used for the determination of D-malic acid (D-malate) in foodstuffs such as wine, fruit and vegetable products, as well as in pharmaceuticals and biological samples.

Kit Components

Solution 1. Glycylglycine buffer (25 mL, 1 M, pH 8.0) plus KCl (0.5 M), MgCl2 (0.5 M) and sodium azide (0.02 % w/v) as a preservative. Stable for 2 years at 4 °C. Solution 2 (×2). NAD+ (250 mg). Stable for 5 years at -20 °C. Dissolve (each bottle) in 11 mL of distilled water, divide into appropriately sized aliquots and store in PP tubes at -20 °C between use (stable for 2 years) and on ice during use. Suspension 3. D-Malate dehydrogenase (EC 1.1.1.83) suspension (2.2 mL, 374 U/mL). Stable for 2 years at 4 °C. Swirl bottle before use. Solution 4. D-Malic acid standard solution (5 mL, 0.20 mg/mL). Stable for 2 years at room temperature. This standard solution can be used when there is some

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doubt about the method accuracy.

Detection method UV method

Compatible Sample Types

Wine, beer, fruit juices, milk, dietetic foods, bread, jam, honey, ice-creams, fruit and vegetables, pharmaceuticals, cosmetics and biological sample.

Features & Benefits

Stable D-MDH suspensionVery rapid reactionStable reagentsSuitable for manual and micro volume formats

Sensitivity

Reaction volume: 2.42 mLRange: 0.25-400 mg/LDetection limit: 0.26 mg/L

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