

## D-Malic acid Assay Kit

### Product Information

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#### Cat.No.

Kit-2063

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#### 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).

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#### Size

100 tests

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#### 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.

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#### 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.

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#### Kit Components

Solution 1. Glycylglycine buffer (25 mL, 1 M, pH 8.0) plus KCl (0.5 M), MgCl<sub>2</sub> (0.5 M) and sodium azide (0.02 % w/v) as a preservative. Stable for 2 years at 4 °C. Solution 2 (×2). NAD<sup>+</sup> (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).



## D-Malic acid Assay Kit

Stable for 2 years at room temperature. This standard solution can be used when there is some doubt about the method accuracy.

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**Detection method** UV method

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**Compatible Sample Types**

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

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**Features & Benefits**

Stable D-MDH suspension Very rapid reaction Stable reagents Suitable for manual and micro volume formats

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**Sensitivity**

Reaction volume: 2.42 mL Range: 0.25-400 mg/L Detection limit: 0.26 mg/L

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