



## D-Fructose/D-Glucose Assay Kit

### Product Information

---

#### Cat.No.

Kit-2055

---

#### Product Overview

Enzymatic method for the determination of D-Fructose and D-Glucose (total sugars). Based on the spectrophotometric measurement of NADPH produced through the reactions, after addition of hexokinase (HK), phosphoglucose isomerase (PGI) and Glucose-6-phosphate dehydrogenase (G6PDH).

---

#### Size

110 tests

---

#### Description

D-Fructose and D-glucose occur widely in plant organisms. In foods, they occur mainly in honey, wine and beer, and a range of solid foodstuffs such as bread and pastries, chocolate and candies. In the wine industry, the content of Dfructose and D-glucose (total reducing sugars) is one of the key quality parameters; it represents the amount of sugar available for yeast fermentation.

---

#### Applications

This rapid and simple specific enzymatic method is used for the simultaneous determination of D-fructose and D-glucose in foodstuffs, pharmaceuticals, cosmetics and biological samples. The analysis of these sugars can also be performed separately. This kit can be used for the auto-analysis of total reducing sugars.

---

#### Kit Components

Solution 1. Imidazole buffer (25 mL, 2 M, pH 7.6) plus MgCl<sub>2</sub> (100 mM) and sodium azide (0.02 % w/v) as a preservative. Stable for 2 years at 4 °C. Solution 2. NADP<sup>+</sup> (250 mg) plus ATP (500 mg) and PVP (120 mg). Stable for 2 years at -20 °C. Dissolve in 12 mL of distilled water, divide into appropriately sized aliquots and store in PP tubes at -20 °C between use (stable for 2 years) and keep cool during use. Suspension 3. Hexokinase (EC 2.7.1.1; 425 U/mL) and Glucose-6-P dehydrogenase (EC 1.1.1.49; 212 U/mL) in 3.2 M ammonium sulphate (2.25 mL). Stable for 2 years at 4 °C. Swirl bottle before use.

---



## D-Fructose/D-Glucose Assay Kit

Suspension 4. Phosphoglucose isomerase (EC 5.3.1.9; 1000 U/mL) in 3.2 M ammonium sulphate (2.25 mL). Stable for 2 years at 4 °C. Swirl bottle before use. Solution 5. D-Fructose/D-glucose standard solution (5 mL, 0.20 mg/mL of each sugar). Stable for 2 years at room temperature. This standard solution can be used when there is some 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 samples.

---

### Features & Benefits

Rapid reactions  
Prevention of tanins inhibition (PVPP included)  
Suitable for manual and micro volume formats

---

### Sensitivity

Reaction volume: 2.34 mL  
Range: 2-800 mg/L  
Detection limit: 0.66 mg/L

---