CREATIVE BIOMART®
Assay Kit

# D-Fructose plus D-Glucose (reducing sugars) Colorimetric Assay Kit

## Product Information

**Cat.No.** Kit-2056

**Product Overview**

Enzymatic method for the determination of D-Fructose plus D-Glucose (total sugars). Based on the spectrophotometric measurement of INT-formazan formed through the combined action of hexokinase (HK), phosphoglucose isomerase (PGI) , Glucose-6-phosphate dehydrogenase (G6PDH) and diaphorase.

**Size**

5 x 10 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, being monitored although the wine making process.

**Applications**

This rapid and simple colorimetric method is used for the determination of D-Fructose plus D-glucose (reducing sugars) in a wide range of matrices. Although specially developed for quantification of reducing sugars in wine industry, this kit is also adequate to reducing sugars measurement in other foodstuffs such as fruit juice, beer, bread, fruit and vegetable products, as well as in cosmetics, pharmaceuticals and biological samples. Simple, robust, and accurate, this assay can be performed using an inexpensive visible spectrophotometer.

**Kit Components**

Solution 1. Imidazole buffer (60 mL, pH 7.6) containing sodium azide (0.02% w/v) as a preservative. Stable for 2 years at 4 °C. Mixture 2 (5 x). NAD+ plus INT, ATP and FAD. Stable for 5 years at -20 °C. Dissolve content of 1 bottle in 12 mL of Solution 1. Stable for at least 48 h. Suspension 3. Hexokinase (HK), Glucose-6-phosphate isomerase (PGI), Glucose-6-phosphate dehydrogenase (G6PDH) and Diaphorase in 3.2 M ammonium sulphate (2.2 mL). Stable for 2 years at 4 °C. Swirl bottle before use.

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Solution 4. D-Fructose standard solution (5 mL, 0.4 mg/mL). Stable for >2 years at 4 °C. This standard solution can be used when there is some doubt about the method accuracy. Powder 5: PVPP (polyvinylpolypyrrolidone; 10 g)

**Detection method** Colorimetric 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**

Simple and robust formatUse of inexpensive visible spectrophotometerRapid reaction

**Sensitivity**

Reaction volume: 3.04mLRange: 25-1200 mg/LDetection limit: 29.5 mg/L

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