

D-Glucuronic acid and D-Galacturonic acid Assay Kit

Product Information

Cat.No.

Kit-2058

Product Overview

Enzymatic method for the determination of D-glucuronic acid and D-galacturonic. Based on the spectrophotometric measurement of NADH produced through the reaction, after addition of uronate dehydrogenase (UDH).

Size

100 tests

Description

D-Glucuronic acid and D-galacturonic acid are naturally occurring hexuronic acids present in glycosaminoglycans, glucuronid conjugates in plant polysaccharides and in mammals. Both D-glucuronic acid and D-galacturonic acid are major components of plant cell wall polysaccharides, being D-glucuronic a component of arabinoxylan and D-galacturonic the major component of pectin. In mammals, D-glucuronic acid occurs as a component of glycosaminoglycans, such as hyaluronan, heparin and chondroitin present in cartilage.

Applications

This rapid and simple method is used for the determination of D-glucuronic acid and D-galacturonic acid in a variety of matrices. This kit is adequate to D-hexuronic acids (including D-glucuronic acid and D-galacturonic acid) measurement in hydrolysates of plant material and polysaccharides, as well as other materials.

Kit Components

Solution 1. Buffer (22 mL, pH 8.0) plus sodium azide (0.02% w/v) as a preservative. Stable for 2 years at 4 °C. Solution 2. NAD⁺ freeze dried powder. Stable for 5 years at -20 °C. Dissolve content in 22 mL of distilled water and 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. Uronate dehydrogenase (UDH) 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-glucuronic standard solution (5 mL, 0.5 mg/mL). Stable for >2 years at 4 °C. This standard solution can be used when there is some doubt about the method accuracy.

Detection method UV method

Compatible Sample Types

Hydrolysates of plant material and polysaccharides, cell culture medium and fermentation samples as well as other materials.

Features & Benefits

Simple formatStable reagentsSuitable for manual and micro volume formats

Sensitivity

Reaction volume: 2.52 mLRange: 5-1500 mg/LDetection limit: 17.4 mg/L
