



## D-Gluconate (D-Gluconic Acid) Colorimetric Assay Kit

### Product Information

#### Cat.No.

Kit-2157

### Product Overview

D-Gluconate (Gluconic Acid) Assay kit is a sensitive, fast and easy-to-use kit. In this assay, Gluconate is utilized by Gluconokinase to form D-Gluconate-6-P and ADP, which subsequently undergoes a series of reactions to form an intermediate that reduces Gluconate probe to give a product with strong absorbance at 450 nm. This assay kit can detect D-Gluconate (D-Gluconic Acid) level less than 2  $\mu$ M in a variety of samples.

#### Size

100 assays

### Description

D-Gluconic acid (C<sub>6</sub>H<sub>12</sub>O<sub>7</sub>) is a mild organic acid that is produced from glucose by glucose oxidase. It is abundantly present in plants, fruits and animal tissues. D-Gluconate (C<sub>6</sub>H<sub>11</sub>O<sub>7</sub>) is the salt or ester of Gluconic Acid. Due to its low toxicity, it is widely used in pharmaceutical, food, and other industries.

### Applications

Measurement of D-Gluconate (D-Gluconic Acid) in various samples such as tissues, plants, fruits and wine

### Storage

Store kit at -20°C, protect from light. Briefly centrifuge small vials prior to opening. Read entire protocol before performing the assay. Gluconate Assay Buffer: Warm to room temperature before use. Gluconate Converter, Gluconate Enzyme Mix, and Gluconate Developer: Reconstitute each with 220  $\mu$ l Assay Buffer. Pipette up and down to dissolve completely. Aliquot and store at -20°C. Avoid repeated freeze/thaw. Keep on ice while in use. Use within two months. ATP and Gluconate Probe: Reconstitute with 220  $\mu$ l dH<sub>2</sub>O. Pipette up and down to completely dissolve. Store at -20°C. Use within two months. Gluconate Standard: Reconstitute with 100  $\mu$ l dH<sub>2</sub>O to generate



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100 mM (100 nmol/μl) Standard solution. Store at -20°C. Use within two months. Keep on ice while in use.

### Kit Components

Gluconate Assay Buffer: 25 ml  
Gluconate Converter: 1 vial  
ATP: 1 vial  
Gluconate Enzyme Mix: 1 vial  
Gluconate Developer: 1 vial  
Gluconate Probe: 1 vial  
Gluconate Standard: 1 vial

**Detection method** Absorbance (450 nm)

### Compatible Sample Types

• Animal tissues (e.g. muscle etc.) • Wine (e.g. red wine and white wine) • Fruits (e.g. orange, apple etc.)

### Features & Benefits

• Rapid & Easy-to-use • Can measure D-Gluconate lower than 2 μM in a variety of samples