

## Native Porcine Mutarotase

Cat. No. NATE-0465

Lot. No. (See product label)

### Introduction

**Description** In enzymology, an aldose 1-epimerase (EC 5.1.3.3) is an enzyme that catalyzes the chemical reaction:  $\alpha$ -D-glucose  $\leftrightarrow$   $\beta$ -D-glucose. Hence, this enzyme has one substrate,  $\alpha$ -D-glucose, and one product,  $\beta$ -D-glucose. This enzyme belongs to the family of isomerases, specifically those racemases and epimerases acting on carbohydrates and derivatives. This enzyme participates in glycolysis and gluconeogenesis.

**Applications** Clinical Chemistry

**Synonyms** mutarotase; aldose mutarotase; galactose mutarotase; galactose 1-epimerase; D-galactose 1-epimerase; aldose 1-epimerase; EC 5.1.3.3

### Product Information

**Species** Porcine

**Source** Porcine kidney

**Form** A freeze-dried material

**EC Number** EC 5.1.3.3

**CAS No.** 9031-76-9

**Unit Definition** That amount of enzyme causing an increase in the rate of spontaneous mutarotation of  $\alpha$ -D-Glucose to  $\beta$ -D-Glucose of one micromole per minute at 25 C and pH 7.0. One unit as described as above is equivalent to approximately 0.04 units in a Glucose dehydrogenase-coupled assay at 25 C and pH 7.2 or approximately 0.0035 units in a GO/HRP coupled assay at 37 C and pH 7.2.

### Storage and Shipping Information

**Storage** Store desiccated at -15°C or below. Allow to come to room temperature before opening. Before returning to storage, redesiccate under vacuum over silica gel for a minimum of four hours. Re-seal before returning to -15°C or below.