Native Microorganism Mutarotase

Cat. No. NATE-1907

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↔ 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	This enzyme is useful for enzymatic determination of glucose.
Synonyms	mutarotase; aldose mutarotase; galactose mutarotase; galactose 1-epimerase; D-galactose 1-epimerase; aldose 1-epimerase; EC 5.1.3.3

Product Information

Source	Microorganism
Appearance	Lyophilized
EC Number	EC 5.1.3.3
CAS No.	9031-76-9
Molecular Weight	ca. 39,500
Specific Activity	more than 120 U/mg protein
Contaminants	(as MRO activity = 100 %) NADHoxidase: < 0.01 %
pH Stability	3.5 - 10.0
Optimum pH	7.0 - 9.0
Thermal stability	No detectable decrease in activity up to 50 °C.
Unit Definition	One unit of activity is defined as the amount of Mutarotase that forms 10μmol of NADH per minute at 25 °C.
Reaction	α-D-glucose ←→ β-D-glucose

Storage and Shipping Information

Storage	Stable at -20 °C for at least one year.