Creative Enzymes®

Native Leuconostoc mesenteroides 6-Phosphogluconolactonase

Cat. No. NATE-0889

Lot. No. (See product label)

Introduction

Description	6-Phosphogluconolactonase is an enzyme in the pentose phosphate pathway. It converts 6-phosphogluconolactone to 6-phosphogluconate.
Applications	Use 6-Phosphogluconolactonase in diagnostic tests for the determination of creatine kinase or glucose in the combination with Hexokinase, Glucose-6-phosphate Dehydrogenase and Phosphogluconate Dehydrogenase.
Synonyms	6-Phosphogluconolactonase

Product Information

Species	Leuconostoc mesenteroides
Source	Leuconostoc mesenteroides
Appearance	White lyophilizate
Molecular Weight	38 kD (SDS)
Activity	>50 U/mg
Contaminants	Creatine kinase: <0.001 G6P-DH: <0.02 Myokinase: <0.001 "NADPH oxidase": <0.001 6-Phosphogluconate dehydrogenase: <0.01
Isoelectric point	6
pH Stability	7.0-9.0
Optimum pH	6.0-7.5
Michaelis Constant	(MES buffer, pH 6.5; +25°C): 6-Phosphogluconalactone: < 1 x 10-7 mol/l
Specificity	6-Phosphogluconolactone 100%, gluconolactone 0.5%
Inhibitors	(NH4)2SO4 (> 20 mmol/l), Mg2+ (>10 mmol/l), NaCl (>10 mmol/l). The enzyme is not inhibited by Cu2+, Zn2+, EDTA, 5.5'-dithiobis-2-nitrobenzoic acid, octanol (0.01%), Triton X-100 (1%) and Thesit (1%).

Storage and Shipping Information

Stability	At -15 to -25°C within specification range for 12 months.