

Native Hexokinase (ADP-Dependent) from Pyrococcus furiosus

Cat. No. NATE-1135

Lot. No. (See product label)

Introduction

Description In enzymology, a ADP-Dependent Hexokinase (EC 2.7.1.147) is an enzyme that catalyzes the chemical reaction: D-Glucose + ADP → D-Glucose-6-phosphate + AMP.

Applications Useful for the enzymatic determination of ADP.

Synonyms ADP-dependent glucokinase; ADP-specific glucokinase; ADP:D-glucose 6-phosphotransferase; EC 2.7.1.147

Product Information

Source Pyrococcus furiosus

Appearance White amorphous powder, lyophilized

EC Number EC 2.7.1.147

CAS No. 173585-07-4

Molecular Weight 100 kDa (gel filtration) 51 kDa (SDS-PAGE)

Activity More than 30 U/mg solid

Contaminants NADPH oxidase < 0.01%; ATPase < 0.01%

Isoelectric point 5.1

pH Stability 5.0–10.0

Optimum pH 7.5

Thermal stability Stable at 95°C and below

Optimum temperature 100°C

Michaelis Constant Glucose 0.64 mM (at 37°C) ADP 0.07 mM (at 37°C)

Activators Mg²⁺, Co²⁺, Mn²⁺

Unit Definition One unit is defined as the amount of enzyme which converts 1 μmole of glucose to D-Glucose-6-phosphate per minute at 37°C under the conditions specified in the assay procedure.

Storage and Shipping Information

Storage Storage at –20°C in the presence of a desiccant is recommended.