

## Native *Bacillus stearothermophilus* Glucokinase

Cat. No. NATE-0282

Lot. No. (See product label)

### Introduction

**Description** Glucokinase (EC 2.7.1.2) is an enzyme that facilitates phosphorylation of glucose to glucose-6-phosphate. Glucokinase occurs in cells in the liver, pancreas, gut, and brain of humans and most other vertebrates. In each of these organs it plays an important role in the regulation of carbohydrate metabolism by acting as a glucose sensor, triggering shifts in metabolism or cell function in response to rising or falling levels of glucose, such as occur after a meal or when fasting. Mutations of the gene for this enzyme can cause unusual forms of diabetes or hypoglycemia.

**Synonyms** EC 2.7.1.2; glucokinase; glucokinase (phosphorylating); 9001-36-9; GCK; FGQTL3; GK; GLK; HHF3; HK4; HKIV; HXKP; LGLK; MODY2

### Product Information

**Source** *Bacillus stearothermophilus*

**Form** Lyophilized powder containing Tris buffer salts

**EC Number** EC 2.7.1.2

**CAS No.** 9001-36-9

**Activity** > 300 units/mg protein

**Unit Definition** One unit will phosphorylate 1.0  $\mu$ mole of D-glucose to D-glucose 6-phosphate per min at pH 9.0 at 30°C.

### Storage and Shipping Information

**Storage** -20°C