Native S. cerevisiae GCKR

Cat. No. GCKR-8324S **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Hexokinase (HK) Grade S was purified from S. cerevisiae.
Species	S.cerevisiae
Source	S.Cerevisiae
Description	In animals, regulation of blood glucose levels by the pancreas in conjunction with the liver is a vital part of homeostasis. In liver cells, extra G6P (glucose-6-phosphate) may be converted to G1P for conversion to glycogen, or it is alternatively converted by glycolysis to acetyl-CoA and then citrate. Excess citrate is exported to the cytosol, where ATP citrate lyase will regenerate acetyl-CoA and OAA. The acetyl-CoA is then used for fatty acid synthesis and cholesterol synthesis, two important ways of utilizing excess glucose when its concentration is high in blood. Liver contains both hexokinase and glucokinase; the latter catalyses the phosphorylation of glucose to G6P and is not inhibited by G6P. Thus, it allows glucose to be converted into glycogen, fatty acids, and cholesterol even when hexokinase activity is low. This is important when blood glucose levels are high. During hypoglycemia, the glycogen can be converted back to G6P and then converted to glucose by the liver-specific enzyme glucose 6-phosphatase. This reverse reaction is an important role of liver cells to maintain blood sugars levels during fasting. This is critical for brain function, since the brain utilizes glucose as an energy source under most conditions.
Form	Not lyophilised.

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Purity	Ammonium sulphate suspension.

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