

Datasheet for ABIN7596262

GCK Protein (AA 1-465) (His tag)



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Overview

Quantity:	500 µg
Target:	GCK
Protein Characteristics:	AA 1-465
Origin:	Human
Source:	Escherichia coli (E. coli)
Protein Type:	Recombinant
Biological Activity:	Active
Purification tag / Conjugate:	This GCK protein is labelled with His tag.
Application:	SDS-PAGE (SDS), Enzyme Activity Assay (EAA)

Product Details

Sequence:	MLDDRAMEA AKKEKVEQIL AEFQLQEEDL KKVMMRMQKE MDRGLRLETH EEASVKMLPT YVRSTPEGSE VGDFLSLDLG GTNFRVMLVK VGEGEEGQWS VKTKHQMYSI PEDAMTGTA MLFDYISECI SDFLDKHQMK HKKLPLGFTF SFPVRHEDID KGILLNWTGK FKASGAEGNN VVGLLRDAIK RRGDFEMDVV AMVNDTVATM ISCYEDHQC EVGMIVGTGC NACYMEEMQN VELVEGDEGR MCVNTEWGAF GDSGELDEFL LEYDRLVDES SANPGQQLYE KLIGGKYMGE LVRLVLLRLV DENLLFHGEA SEQLRTRGAF ETRFVSQVES DTGDRKQIYN ILSTLGLRPS TTDCDIVRRA CESVSTRAAH MCSAGLAGVI NRMRESRSED VMRITVGVDG SVYKLHPSFK ERFHASVRRL TPSCEITFIE SEEGSGRGAA LVSAVACKKA CMLGQ
Purity:	> 95% by SDS-PAGE
Endotoxin Level:	< 1 EU per 1ug of protein (determined by LAL method)

Product Details

Biological Activity Comment: Specific activity is > 2,000pmol/min/ug. One unit will convert 1pmole of D-Glucose to D-Glucose-6-phosphate per minute at pH8.0 at 37C.

Target Details

Target: GCK

Alternative Name: Hexokinase 4 ([GCK Products](#))

Background: Hexokinase is the first enzyme in the glycolytic pathway, catalyzing the transfer of a phosphoryl group from ATP to glucose to form glucose-6-phosphate and ADP. In mammals, four distinct enzymes -types 1 to 4 hexokinases- have been identified. The enzyme is found in most cells, but there is tissue specificity for the particular type of hexokinase. Hexokinase 4 is found in the liver and pancreatic beta-cells, where it is controlled by insulin (activation) and glucagon (inhibition). In pancreatic beta-cells, type IV enzyme acts as a glucose sensor to modify insulin secretion. Hexokinase 4 is commonly called glucokinase. Recombinant human Hexokinase 4, fused to His-tag at N-terminus, was expressed in E.coli and purified by using conventional chromatography techniques.

Molecular Weight: 54.3 kDa (485aa)

NCBI Accession: [NP_000153](#)

Pathways: [MAPK Signaling](#), [Positive Regulation of Peptide Hormone Secretion](#), [Carbohydrate Homeostasis](#), [Cellular Glucan Metabolic Process](#), [Regulation of Carbohydrate Metabolic Process](#)

Application Details

Application Notes: Optimal working dilution should be determined by the investigator.

Restrictions: For Research Use only

Handling

Format: Liquid

Concentration: 1 mg/mL

Storage: 4 °C,-20 °C,-80 °C

Storage Comment: Can be stored at +2°C to +8°C for 1 week. For long term storage, aliquot and store at -20°C to -80°C. Avoid repeated freezing and thawing cycles.