

Active Recombinant Human GCK Protein, His-tagged

Cat. No. GCK-005H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant human Hexokinase4, fused to His-tag at N-terminus, was expressed in E.coli and purified by using conventional chromatography techniques.
Species	Human
Source	E.coli
Description	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. Hexokinase4 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. Hexokinase4 is commonly called 'glucokinase'.
Form	Liquid
Bio-activity	Specific activity is > 2,000 pmol/min/μg. One unit will convert 1 pmoles of D-Glucose to D-Glucose-6-phosphate per minute at pH8.0 at 37 centigrade.
Molecular Mass	54.3 kDa (485aa)
AA Sequence	MGSSHHHHHHSSGLVPRGSHMLDDRARMEAAKKEKVEQILAEFQLQEEDLKKVMR RMQKEMDRGLRLETHEEASVKMLPTYVRSTPEGSEVGDFLSLDLGGTNFRVMLVK

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VGEGEEGQWSVKTKHQMYSIPEDAMTGTAEMLFDYISECISDFLDKHQMKHKKLPL
GFTFSFPVRHEDIDKGILLNWTGKFASGAEGNNVVGLLRDAIKRRGDFEMDVVAM
VNDTVATMISCYYEDHQCEVGMIVGTGCNACYMEEMQNVELVEGDEGRMCVNT
WGAFGDSGELDEFLLDYDRLVDESSANPGQQLYEKLIGGKYMGEVLRLVLLRLVDE
NLLFHGEASEQLRTRGAFETRFVSQVESDTGDRKQIYNILSTLGLRPSTTDCDIVRRA
CESVSTRAAHMCSAGLAGVINRMRESRSEDVMRITVGVDGSVYKLHPSFKERFHAS
VRRLTPTSCEITFIESEEGSGRGAALVSAVACKKACMLGQ

Endotoxin	< 1.0 EU per 1µg of protein (determined by LAL method)
Purity	> 95% by SDS-PAGE
Notes	For research use only. This product is not intended or approved for human, diagnostics or veterin.
Storage	Can be stored at +4 centigrade short term (1-2 weeks). For long term storage, aliquot and store at -20 or -70 centigrade. Avoid repeated freezing and thawing cycles.
Concentration	1 mg/mL (determined by Bradford assay)
Storage Buffer	In 20 mM Tris-HCl buffer (pH 8.0) containing 10% glycerol

GENE INFORMATION

Gene Name	GCK glucokinase [Homo sapiens (human)]
Official Symbol	GCK
Synonyms	Hexokinase type IV; Glucokinase; GCK; GK; GLK; HK4; HHF3; HKIV; HXKP; LGLK; MODY2; FGQLT3; glucokinase; ATP:D-hexose 6-phosphotransferase; HK IV;

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glucokinase (hexokinase 4); hexokinase D, pancreatic isozyme; hexokinase type IV;
EC 2.7.1.2

Gene ID 2645

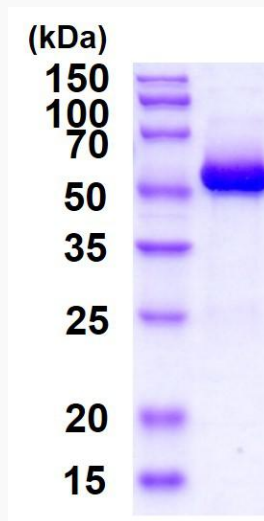
mRNA Refseq NM_000162

Protein Refseq NP_000153

MIM 138079

UniProt ID P35557

SDS-PAGE



15% SDS-PAGE (3μg)

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