

Recombinant human Hexokinase 4 protein

Catalog Number: HXK0702

PRODUCT INFORMATION

Expression system

E.coli

Domain

1-465aa

UniProt No.

P35557

NCBI Accession No.

NP_000153

Alternative Names

GCK, glucokinase, MODY2, Maturity onset diabetes of the young 2, Hexokinase 4, HK4, Hexokinase type IV, HK IV, Hexokinase-D

PRODUCT SPECIFICATION

Molecular Weight

54.3 kDa (485aa)

Concentration

1mg/ml (determined by Bradford assay)

Formulation

Liquid in. 20mM Tris-HCl buffer (pH 8.0) containing 10% glycerol

Purity

> 95% by SDS-PAGE

Tag

His-Tag

Application

SDS-PAGE

Storage Condition

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

BACKGROUND

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

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modify insulin secretion. Hexokinase4 is commonly called glucokinase. Recombinant human Hexokinase4, fused to His-tag at N-terminus, was expressed in E. coli and purified by using conventional chromatography techniques.

Amino acid Sequence

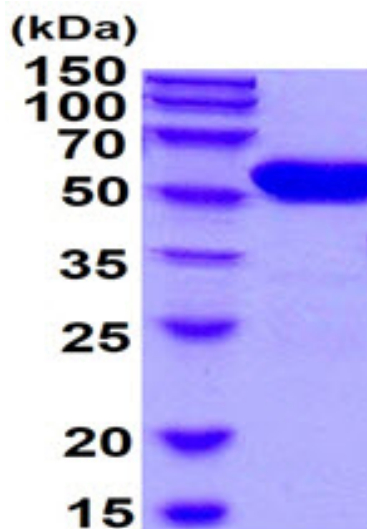
MGSSHHHHHH SGLVPRGSH MLDDRARMEA AKKEKVEQIL AEFQLQEEDL KKVMRRMQKE MDRGLRLETH
EEASVKMLPT YVRSTPEGSE VGDFLSLDLG GTNFRVMLVK VGEGEEGQWS VKTKHQMYSI PEDAMTGTAE MLFDYISECI
SDFLDKHQMK HKKLPLGFTF SFPVRHEDID KGILLNWTKG FKASGAEGNN VVGLLRDAIK RRGDFEMDVV AMVNDTVATM
ISCYYEDHQC EVGMIVGTGC NACYMEEMQN VELVEGDEGR MCVNTEWGAF GDSGELDEFL LEYDRLVDES SANPGQQLYE
KLIKKYMG E LVRLVLLRLV DENLLFHGEA SEQLRTRGAF ETRFVSQVES DTGDRKQIYN ILSTLGLRPS TTDCDIVRRA
CESVSTRAAH MCSAGLAGVI NRMRESRSED VMRITVGVDG SVYKLHPSFK ERFHASVRRL TPSCEITFIE SEEGSGRGAA
LVSAVACKKA CMLGQ

General References

Jon E. et al.,(2003) J.Exp Biology. 206: 2049-2057

DATA

SDS-PAGE



3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain.

15% SDS-PAGE (3ug)