

# Product information

## Hexokinase 4, 1-465 aa

Human, His tagged, Recombinant, *E.coli*

Cat. No. IBH XK0702

**Synonyms:** Hexokinase type IV, Glucokinase, GCK

**NCBI Accession No.:** NP\_000153

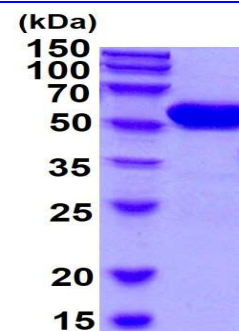
**Description:** Hexokinase is the first enzyme in the glycolytic pathway, catalyzing the transfer of a phosphoryl group from ATP to glucose to form glucose-6-phosphate and ADP. In mammals, four distinct enzymes-types 1 to 4 hexokinases-have been identified. The enzyme is found in most cells, but there 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'. Recombinant human Hexokinase4, fused to His-tag at N-terminus, was expressed in *E.coli* and purified by using conventional chromatography techniques.

**Form:** Liquid. In 20 mM Tris-HCl buffer (pH 8.0) containing 10% glycerol

**Molecular Weight:** 54.3kDa (485aa)

**Purity:** > 95% by SDS - PAGE

**Concentration:** 1 mg/ml (determined by Bradford assay)



15% SDS-PAGE (3ug)

### Sequences of amino acids:

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MGSSHHHHH SSGLVPRGSH MLDDRAMEA AKKEKVEQIL AEFQLQEEDL KKVMRRMQKE MDRGLRLETH EEASVKMLPT YVRSTPEGSE
VGDFLSLDLG GTNFRVMLVK VGEGEEGQWS VKTKHQMYSI PEDAMTGTAEL MLFDYISECI SDFLDKHQMK HKKLPLGFTF SFPVRHEDID
KGILLNWTKG FKASGAEGNN VGLLRDAIK RRGDFEMDVV AMVNDTVATM I SCYYEDHQC EVGMIVGTGC NACYMEEMQN VELVEGDEGR
MCVNTEWGAF GDSGELDEFL LEYDRLVDES SANPGQQLYE KLIGGKYMGE LVRLVLLRLV DENLLFHGEA SEQLRTRGAF ETRFVSQVES
DTGDRKQIYN ILSTLGLRPS TTDCDIVRRA CESVSTRAAH MCSAGLAGVI NRMRESRSED VMRITVGVOD SVYKLHPSFK ERFHASVRRLL
TPSCEITFIE SEEGSGRGAA LVSAVACKKA CMLGQ
  
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### General references:

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

**Storage:** Can be stored at +4°C short term (1-2 weeks). For long term storage, aliquot and store at -20°C or -70°C. Avoid repeated freezing and thawing cycles.

**For research use only. This product is not intended or approved for human, diagnostics or veterinary use.**



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