

# Recombinant Human Glucokinase (Hexokinase 4), GST-tagged, Active

**Cat. No.** GCK-323H    **Lot. No.** (See product label)

## SPECIFICATION

|                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Overview</b>      | Recombinant human Full-length GCK was expressed by baculovirus in <i>Sf9</i> cell/s using an N-terminal GST tag. MW=125kDa.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Species</b>               | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Source</b>                | Sf9 Cells                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Description</b>           | GCK is a serine/threonine protein kinase that is activated by TNF $\alpha$ and interacts with the TNF receptor-associated factor 2 (TRAF2). GCK is upstream of MAP kinases and particularly activates the SAPK pathway. Although GCK is found in many tissues, its expression in lymphoid follicles is restricted to the cells of germinal centre, where it may participate in B-cell differentiation. A mouse protein Rab8ip that has high homology to GCK can interact with the vesicular transport protein Rab8. Based on its interaction with Rab8, it is postulated that Rab8ip/GCK may modulate secretion in response to stress stimuli. |
| <b>Sequence</b>              | Full-length.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Applications</b>          | Kinase Assay, Western Blot.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Storage And Stability</b> | Store product at $-70^{\circ}\text{C}$ . For optimal storage, aliquot target into smaller quantities after centrifugation and store at recommended temperature. For most favorable performance, avoid repeated handling and multiple freeze/thaw cycles.                                                                                                                                                                                                                                                                                                                                                                                       |

 Tel: 1-631-559-9269    1-516-512-3133

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)     Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

## GENE INFORMATION

|                            |                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Gene Name</b>           | GCK glucokinase (hexokinase 4) [ Homo sapiens ]                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Synonyms</b>            | GCK; glucokinase (hexokinase 4); GK; GLK; HK4; HHF3; HKIV; HXKP; MODY2; Hexokinase type IV; HK IV; Hexokinase-D; EC 2.7.1.2; Hexokinase-4; OTTHUMP00000024521; OTTHUMP00000159308; D-hexose 6-phosphotransferase; Hexokinase type IV; hexokinase D, pancreatic isozyme; maturity onset diabetes of the young 2                                                                                                                     |
| <b>Gene ID</b>             | 2645                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>mRNA Refseq</b>         | NM_000162                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Protein Refseq</b>      | NP_000153                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>UniProt ID</b>          | P35557                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Chromosome Location</b> | 7p15.3-p15.1                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>MIM</b>                 | 138079                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Pathway</b>             | Amino sugar and nucleotide sugar metabolism; Galactose metabolism; Glycolysis / Gluconeogenesis; Insulin signaling pathway; Maturity onset diabetes of the young; Metabolic pathways; Starch and sucrose metabolism; Streptomycin biosynthesis; Type II diabetes mellitus; Diabetes pathways; Integration of energy metabolism; Integration of energy metabolism; Metabolism of carbohydrates; Regulation of beta-cell development |
| <b>Function</b>            | ATP binding; glucokinase activity; glucose binding; kinase activity; nucleotide binding;                                                                                                                                                                                                                                                                                                                                           |

 Tel: 1-631-559-9269 1-516-512-3133

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

protein binding; transferase activity

Based on PDB entry  
1GLK



Tel: 1-631-559-9269 1-516-512-3133

Email: [info@creative-biomart.com](mailto:info@creative-biomart.com) Fax: 1-631-938-8127

45-1 Ramsey Road, Shirley, NY 11967, USA