



GCK Monoclonal Antibody

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| Catalog No | YP-Ab-14150 |
| Isotype | IgG |
| Reactivity | Human |
| Applications | WB;ELISA |
| Gene Name | GCK |
| Protein Name | Glucokinase |
| Immunogen | Purified recombinant fragment of human GCK expressed in E. Coli. |
| Specificity | GCK Monoclonal Antibody detects endogenous levels of GCK protein. |
| Formulation | Ascitic fluid containing 0.03% sodium azide,0.5% BSA, 50%glycerol. |
| Source | Monoclonal, Mouse |
| Purification | Affinity purification |
| Dilution | Western Blot: 1/500 - 1/2000. ELISA: 1/10000. Not yet tested in other applications. |
| Concentration | 1 mg/ml |
| Purity | ≥90% |
| Storage Stability | -20°C/1 year |
| Synonyms | GCK; Glucokinase; Hexokinase type IV; HK IV; Hexokinase-4; HK4; Hexokinase-D |
| Observed Band | |
| Cell Pathway | Cytoplasm . Nucleus . Mitochondrion . Under low glucose concentrations, GCK associates with GCKR and the inactive complex is recruited to the hepatocyte nucleus. . |
| Tissue Specificity | Lung,Pancreas,Placenta, |
| Function | catalytic activity:ATP + D-glucose = ADP + D-glucose 6-phosphate.,disease:Defects in GCK are the cause of familial hyperinsulinemic hypoglycemia type 3 (HHF3) [MIM:602485]. HHF is the most common cause of persistent hypoglycemia in infancy. Unless early and aggressive intervention is undertaken, brain damage from recurrent episodes of hypoglycemia may occur.,disease:Defects in GCK are the cause of maturity onset diabetes of the young type 2 (MODY2) [MIM:125851]; also shortened MODY-2. MODY [MIM:606391] is a form of diabetes mellitus characterized by autosomal dominant transmission and early age of onset. Mutations in GCK result in mild chronic hyperglycemia due to reduced pancreatic beta cell responsiveness to glucose, decreased net accumulation of hepatic glycogen and increased hepatic gluconeogenesis following meals.,enzyme regulation:The use of alternative promoters apparently enables |



Background

Hexokinases phosphorylate glucose to produce glucose-6-phosphate, the first step in most glucose metabolism pathways. Alternative splicing of this gene results in three tissue-specific forms of glucokinase, one found in pancreatic islet beta cells and two found in liver. The protein localizes to the outer membrane of mitochondria. In contrast to other forms of hexokinase, this enzyme is not inhibited by its product glucose-6-phosphate but remains active while glucose is abundant. Mutations in this gene have been associated with non-insulin dependent diabetes mellitus (NIDDM), maturity onset diabetes of the young, type 2 (MODY2) and persistent hyperinsulinemic hypoglycemia of infancy (PHI). [provided by RefSeq, Apr 2009],

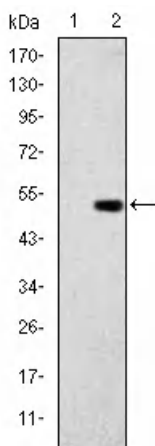
matters needing attention

Avoid repeated freezing and thawing!

Usage suggestions

This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.

Products Images



Western Blot analysis using GCK Monoclonal Antibody against HEK293 (1) and GCK-hlgGfc transfected HEK293 (2) cell lysate.

