

**Glucokinase Rabbit mAb**  
Catalog # AP77033**Specification****Glucokinase Rabbit mAb - Product Information**

Application	<b>WB</b>
Primary Accession	<a href="#">P35557</a>
Reactivity	<b>Human</b>
Host	<b>Rabbit</b>
Clonality	<b>Monoclonal Antibody</b>
Calculated MW	<b>52191</b>

**Glucokinase Rabbit mAb - Additional Information**

Gene ID 2645

**Other Names**

GCK

**Dilution**

WB~~1/500-1/1000

**Format**

Liquid

**Glucokinase Rabbit mAb - Protein Information****Name** GCK {ECO:0000303|PubMed:17573900, ECO:0000312|HGNC:HGNC:4195}**Function**

Catalyzes the phosphorylation of hexose, such as D-glucose, D-fructose and D-mannose, to hexose 6-phosphate (D-glucose 6-phosphate, D-fructose 6-phosphate and D-mannose 6-phosphate, respectively) (PubMed: [11916951](http://www.uniprot.org/citations/11916951) target="\_blank">11916951</a>, PubMed: [15277402](http://www.uniprot.org/citations/15277402) target="\_blank">15277402</a>, PubMed: [17082186](http://www.uniprot.org/citations/17082186) target="\_blank">17082186</a>, PubMed: [18322640](http://www.uniprot.org/citations/18322640) target="\_blank">18322640</a>, PubMed: [19146401](http://www.uniprot.org/citations/19146401) target="\_blank">19146401</a>, PubMed: [25015100](http://www.uniprot.org/citations/25015100) target="\_blank">25015100</a>, PubMed: [7742312](http://www.uniprot.org/citations/7742312) target="\_blank">7742312</a>, PubMed: [8325892](http://www.uniprot.org/citations/8325892) target="\_blank">8325892</a>). Compared to other hexokinases, has a weak affinity for D-glucose, and is effective only when glucose is abundant (By similarity). Mainly expressed in pancreatic beta cells and the liver and constitutes a rate-limiting step in glucose metabolism in these tissues (PubMed: [11916951](http://www.uniprot.org/citations/11916951) target="\_blank">11916951</a>, PubMed: [15277402](http://www.uniprot.org/citations/15277402) target="\_blank">15277402</a>, PubMed: [18322640](http://www.uniprot.org/citations/18322640) target="\_blank">18322640</a>, PubMed: [25015100](http://www.uniprot.org/citations/25015100) target="\_blank">25015100</a>, PubMed: [8325892](http://www.uniprot.org/citations/8325892) target="\_blank">8325892</a>).

target="\_blank">8325892</a>). Since insulin secretion parallels glucose metabolism and the low glucose affinity of GCK ensures that it can change its enzymatic activity within the physiological range of glucose concentrations, GCK acts as a glucose sensor in the pancreatic beta cell (By similarity). In pancreas, plays an important role in modulating insulin secretion (By similarity). In liver, helps to facilitate the uptake and conversion of glucose by acting as an insulin-sensitive determinant of hepatic glucose usage (By similarity). Required to provide D-glucose 6-phosphate for the synthesis of glycogen (PubMed:<a href="http://www.uniprot.org/citations/8878425" target="\_blank">8878425</a>). Mediates the initial step of glycolysis by catalyzing phosphorylation of D-glucose to D-glucose 6-phosphate (PubMed:<a href="http://www.uniprot.org/citations/7742312" target="\_blank">7742312</a>).

#### Cellular Location

Cytoplasm. Nucleus. Mitochondrion {ECO:0000250|UniProtKB:P17712}. Note=Under low glucose concentrations, GCK associates with GCKR and the inactive complex is recruited to the hepatocyte nucleus.

#### Glucokinase Rabbit mAb - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

#### Glucokinase Rabbit mAb - Images

