

Anti-Glucokinase Rabbit Monoclonal Antibody Catalog # ABO15841

Specification

Anti-Glucokinase Rabbit Monoclonal Antibody - Product Information

Application	WB
Primary Accession	P35557
Host	Rabbit
Isotype	IgG
Reactivity	Human
Clonality	Monoclonal
Format	Liquid

Description

Anti-Glucokinase Rabbit Monoclonal Antibody . Tested in WB application. This antibody reacts with Human.

Anti-Glucokinase Rabbit Monoclonal Antibody - Additional Information

Gene ID 2645

Other Names

Hexokinase-4, HK4, 2.7.1.1, Glucokinase, Hexokinase type IV, GCK
{ECO:0000303|PubMed:17573900, ECO:0000312|HGNC:HGNC:4195}

Calculated MW

52 kDa KDa

Application Details

WB 1:500-1:2000

Contents

Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.

Immunogen

A synthesized peptide derived from human Glucokinase

Purification

Affinity-chromatography

Storage

Store at -20°C for one year. For short term storage and frequent use, store at 4°C for up to one month. Avoid repeated freeze-thaw cycles.

Anti-Glucokinase Rabbit Monoclonal Antibody - 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)), PubMed: [15277402](http://www.uniprot.org/citations/15277402), PubMed: [17082186](http://www.uniprot.org/citations/17082186), PubMed: [18322640](http://www.uniprot.org/citations/18322640), PubMed: [19146401](http://www.uniprot.org/citations/19146401), PubMed: [25015100](http://www.uniprot.org/citations/25015100), PubMed: [7742312](http://www.uniprot.org/citations/7742312), PubMed: [8325892](http://www.uniprot.org/citations/8325892)). 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)), PubMed: [15277402](http://www.uniprot.org/citations/15277402), PubMed: [18322640](http://www.uniprot.org/citations/18322640), PubMed: [25015100](http://www.uniprot.org/citations/25015100), PubMed: [8325892](http://www.uniprot.org/citations/8325892)). 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: [8878425](http://www.uniprot.org/citations/8878425)). Mediates the initial step of glycolysis by catalyzing phosphorylation of D-glucose to D-glucose 6-phosphate (PubMed: [7742312](http://www.uniprot.org/citations/7742312)).

Cellular Location

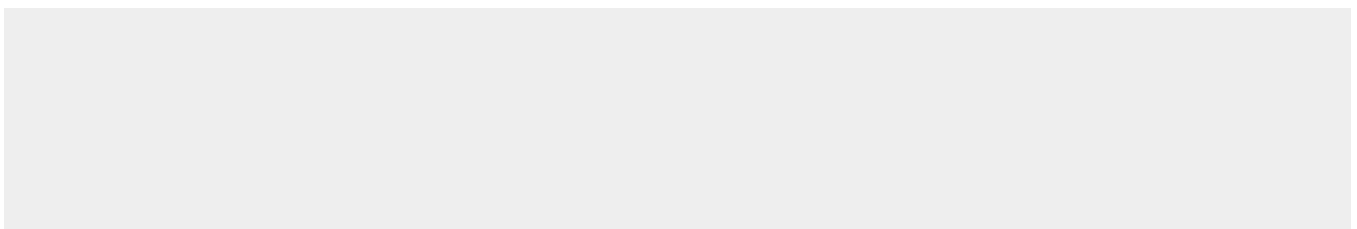
Cytoplasm. Nucleus. Mitochondrion {ECO:0000250|UniProtKB:P17712}. Note=Under low glucose concentrations, GCK associates with GCKR and the inactive complex is recruited to the hepatocyte nucleus.

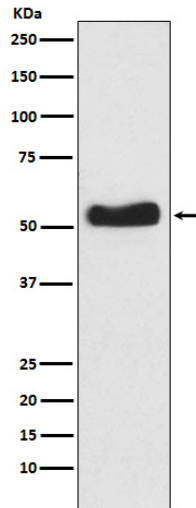
Anti-Glucokinase Rabbit Monoclonal Antibody - Protocols

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](#)

Anti-Glucokinase Rabbit Monoclonal Antibody - Images





Western blot analysis of Glucokinase expression in BxPC-3 cell lysate.