

Anti-Glycerol kinase Picoband Antibody
Catalog # ABO12997**Specification**

Anti-Glycerol kinase Picoband Antibody - Product Information

Application	WB, IHC-P, E
Primary Accession	P32189
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized

Description

Rabbit IgG polyclonal antibody for Glycerol kinase detection. Tested with WB, IHC-P, Direct ELISA in Human;Mouse;Rat.

Reconstitution

Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-Glycerol kinase Picoband Antibody - Additional Information

Gene ID 2710

Other Names

Glycerol kinase, GK, Glycerokinase, 2.7.1.30, ATP:glycerol 3-phosphotransferase, GK

Application Details

Western blot, 0.1-0.5 µg/ml
Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml
Direct ELISA, 0.1-0.5 µg/ml

Subcellular Localization

Mitochondrion outer membrane; In sperm and fetal tissues, the majority of the enzyme is bound to mitochondria, but in adult tissues, such as liver found in the cytoplasm.

Tissue Specificity

Highly expressed in the liver, kidney and testis. Isoform 2 and isoform 3 are expressed specifically in testis and fetal liver, but not in the adult liver.

Contents

Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na₂HPO₄, 0.05mg NaN₃.

Immunogen

E. coli-derived human Glycerol kinase recombinant protein (Position: M1-S180).

Cross Reactivity

No cross reactivity with other proteins.

Storage

At -20°C; for one year. After r°Constitution, at 4°C; for one month. It°Can also be

aliquotted and stored frozen at -20°C; for a longer time. Avoid repeated freezing and thawing.

Anti-Glycerol kinase Picoband Antibody - Protein Information

Name GK ([HGNC:4289](#))

Function

Kinase that plays a key role in glycerol metabolism, catalyzing its phosphorylation to produce sn-glycerol 3-phosphate. Sn- glycerol 3-phosphate is a crucial intermediate in various metabolic pathways, such as the synthesis of glycerolipids and triglycerides, glycogenesis, glycolysis and gluconeogenesis.

Cellular Location

Mitochondrion outer membrane; Single-pass membrane protein. Nucleus. Cytoplasm, cytosol. Note=Glycerol kinase activity is more cytosolic in some tissues. It probably represents the expression of isoforms lacking a transmembrane domain [Isoform 4]: Cytoplasm, cytosol. Note=In adult tissues, such as liver the glycerol kinase activity is more cytosolic. It probably represents the expression of this isoform which lacks a transmembrane domain

Tissue Location

[Isoform 2]: Widely expressed in fetal and adult tissues. [Isoform 4]: The sole isoform expressed in adult liver and kidney.

Anti-Glycerol kinase Picoband 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-Glycerol kinase Picoband Antibody - Images

Anti-Glycerol kinase Picoband Antibody - Background

Glycerol kinase is a phosphotransferase enzyme involved in triglycerides and glycerophospholipids synthesis. The protein encoded by this gene belongs to the FGGY kinase family. This protein is a key enzyme in the regulation of glycerol uptake and metabolism. It catalyzes the phosphorylation of glycerol by ATP, yielding ADP and glycerol-3-phosphate. Mutations in this gene are associated with glycerol kinase deficiency (GKD). Alternatively spliced transcript variants encoding different isoforms have been found for this gene.