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anti-Glycerol Kinase antibody (AA 1-180)

3 Images



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Overview

Quantity:	100 μg
Target:	Glycerol Kinase (GK)
Binding Specificity:	AA 1-180
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Application:	ELISA, Western Blotting (WB), Immunohistochemistry (IHC)

Product Details

Brand:	Picoband™
Immunogen:	E. coli-derived human Glycerol kinase recombinant protein (Position: M1-S180).
Cross-Reactivity (Details):	No cross reactivity with other proteins.
Characteristics:	Rabbit IgG polyclonal antibody for Glycerol kinase detection. Tested with WB, IHC-P, Direct ELISA in Human, Mouse, Rat.

Target Details

Target:	Glycerol Kinase (GK)
Alternative Name:	GK (GK Products)
Background:	Synonyms: Glycerol kinase, GK, Glycerokinase, ATP:glycerol 3-phosphotransferase, GK
	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.

Target Details

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.

UniProt:

P32189

Application Details

Application Notes:	Recommended Detection Systems: Enhanced Chemiluminescent Kit with anti-Rabbit IgG
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(ABIN921124) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit

(SV0002-1) for IHC(P).

Application Details: Western blot, 0.1-0.5 µg/mL

Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/mL

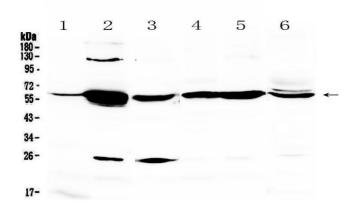
Direct ELISA, 0.1-0.5 µg/mL

Restrictions:

For Research Use only

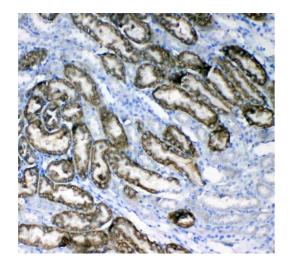
Handling

Format:	Lyophilized
Reconstitution:	Add 0.2 mL of distilled water will yield a concentration of 500 µg/mL.
Buffer:	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na $_2$ HPO $_4$, 0.05 mg NaN $_3$.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	4 °C,-20 °C
Storage Comment:	At -20°C for one year. After reconstitution, 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.



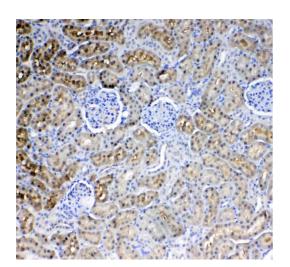
Western Blotting

Image 1. Western blot analysis of Glycerol kinase using anti-Glycerol kinase antibody. Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each Lane was loaded with 50ug of sample under reducing conditions. Lane 1: human placenta tissue lysates, Lane 2: human HepG2 whole cell lysates, Lane 3: human SW579 whole cell lysates, Lane 4: human SK-OV-3 whole cell lysates, Lane 5: human U-87MG whole cell lysates, Lane 6: rat testis tissue lysates. After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-Glycerol kinase antigen affinity purified polyclonal antibody (Catalog #) at 0.5 µg/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for Glycerol kinase at approximately 61KD. The expected band size for Glycerol kinase is at 61KD.



Immunohistochemistry

Image 2. IHC analysis of Glycerol kinase using anti-Glycerol kinase antibody . Glycerol kinase was detected in paraffinembedded section of mouse kidney tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1 μ g/ml rabbit anti-Glycerol kinase Antibody overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30



minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

Immunohistochemistry

Image 3. IHC analysis of Glycerol kinase using anti-Glycerol kinase antibody. Glycerol kinase was detected in paraffinembedded section of rat kidney tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1µg/ml rabbit anti-Glycerol kinase Antibody overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.