

Product datasheet for **TA396666S**

GPD1 Goat Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	ELISA, WB
Recommended Dilution:	WB: 1:500 - 1:2,500 ELISA: 1:1,000 - 1:5,000
Reactivity:	Rabbit
Host:	Goat
Clonality:	Polyclonal
Immunogen:	Glycerol-3-Phosphate-Dehydrogenase [Rabbit Muscle]
Specificity:	Glycerol-3-Phosphate Dehydrogenase is an IgG fraction antibody purified from monospecific antiserum by a multi-step process which includes delipidation, salt fractionation and ion exchange chromatography followed by extensive dialysis against the buffer stated above. Assay by immunoelectrophoresis resulted in a single precipitin arc against anti-Peroxidase, anti-Goat Serum as well as purified and partially purified Glycerol-3-Phosphate-Dehydrogenase [Rabbit Muscle]. Cross reactivity against Glycerol-3-Phosphate-Dehydrogenase from other sources is unknown.
Formulation:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Concentration:	1.0 mg/mL - lot specific
Conjugation:	HRP
Storage:	Store vial at -20° C or below prior to opening. This vial contains a relatively low volume of reagent (25 µL). To minimize loss of volume dilute 1:10 by adding 225 µL of the buffer stated above directly to the vial. Recap, mix thoroughly and briefly centrifuge to collect the volume at the bottom of the vial. Use this intermediate dilution when calculating final dilutions as recommended below. Store the vial at -20°C or below after dilution. Avoid cycles of freezing and thawing.
Stability:	Expiration date is one (1) year from date of receipt.
Database Link:	Entrez Gene 100339469 Rabbit P08507



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Background:

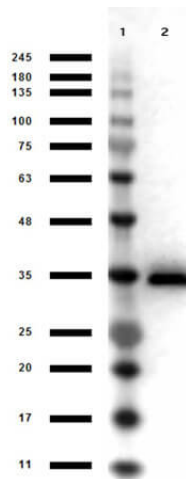
Glycerol-3-phosphate dehydrogenase serves as a major link between carbohydrate metabolism and lipid metabolism. Through the reduction of dihydroxyacetone phosphate into glycerol 3-phosphate, GPDH allows the prompt dephosphorylation of glycerol 3-phosphate into glycerol. It is also a major contributor of electrons to the electron transport chain in the mitochondria. GPDH is responsible for maintaining the redox potential across the inner mitochondrial membrane in glycolysis. Since glycerol is a main subunit in lipid metabolism, its abundance can easily lead to an increase in triglyceride accumulation at a cellular level. As a result, there is a tendency to form adipose tissue leading to an accumulation of fat that favors obesity. GPDH has also been found to play a role in Brugada syndrome. Mutations in the gene encoding GPD1 have been proven to cause defects in the electron transport chain. This conflict with NAD⁺/NADH levels in the cell is believed to contribute to defects in cardiac sodium ion channel regulation and can lead to a lethal arrhythmia during infancy.

Synonyms:

goat anti-Glycerol-3-Phosphate Dehydrogenase Antibody HRP Conjugation, Peroxidase Conjugated goat anti-Glycerol-3-Phosphate Dehydrogenase Antibody, FLJ26652 antibody, G3PD antibody, Gdc-1 antibody, Glycerphosphate dehydrogenase antibody, GPD-C antibody, Gpd1 protein antibody

Note:

Anti-Glycerol-3-Phosphate Dehydrogenase has been tested by western blot and is suitable to be assayed against 1.0 ug of Glycerol-3-Phosphate-Dehydrogenase [Rabbit Muscle] in a standard capture ELISA using ABTS (2,2'-azino-bis-[3-ethylbenzothiazoline-6-sulfonic acid]) code # ABTS-100 as a substrate for 30 minutes at room temperature. A working dilution of 1:500 to 1:2,500 of the reconstitution concentration is suggested for this product.

Product images:

Western Blot results of Goat Anti-Glycerol 3 Phosphate-Dehydrogenase Peroxidase Conjugated. Lane 1: Opal Prestained Molecular weight Ladder (p/n MB-210-0500). Lane 2: Glycerol 3 Phosphate-Dehydrogenase. Load: 1µg. Primary Antibody: Goat anti-Glycerol 3 Phosphate-Dehydrogenase Peroxidase Conjugated Antibody at 1µg/mL overnight at 4°C. Secondary Antibody: Donkey Anti-Goat HRP (p/n 605-703-125) at 1:40,000 for 30min at RT. Blocking: BlockOut (p/n MB-073) for 30 min at RT. Expect: ~37kDa.