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# Anti-GLYCEROL-3-PHOSPHATE DEHYDROGENASE (GOAT) Antibody Peroxidase Conjugated

**Glycerol-3-Phosphate Dehydrogenase Antibody Peroxidase Conjugated**
**Catalog # ASR3986**

## Specification

### Anti-GLYCEROL-3-PHOSPHATE DEHYDROGENASE (GOAT) Antibody Peroxidase Conjugated - Product Information

| | |
|---|---|
| Host | **Goat** |
| Conjugate | **Peroxidase (Horseradish)** |
| Target Species | **Rabbit** |
| Reactivity | **Rabbit** |
| Clonality | **Polyclonal** |
| Application | **WB, E, I, LCI** |
| Application 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-ethylbenthiazoline-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.** |
| Physical State | **Lyophilized** |
| Buffer | **0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2** |
| Immunogen | **Glycerol-3-Phosphate-Dehydrogenase [Rabbit Muscle]** |
| Reconstitution Volume | **100 µL** |
| Reconstitution Buffer | **Restore with deionized water (or equivalent)** |
| Stabilizer | **10 mg/mL Bovine Serum Albumin (BSA) - Immunoglobulin and Protease free** |
| Preservative | **0.01% (w/v) Gentamicin Sulfate. Do NOT add Sodium Azide!** |

### Anti-GLYCEROL-3-PHOSPHATE DEHYDROGENASE (GOAT) Antibody Peroxidase Conjugated - Additional Information

**Other Names**
100339469

**Purity**
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.

**Storage Condition**
Store vial at 4° C prior to restoration. For extended storage aliquot contents and freeze at -20° C or below. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.

**Precautions Note**
This product is for research use only and is not intended for therapeutic or diagnostic applications.

## Anti-GLYCEROL-3-PHOSPHATE DEHYDROGENASE (GOAT) Antibody Peroxidase Conjugated - Protein Information

**Name** GPD1

**Function**
Has glycerol-3-phosphate dehydrogenase activity.

**Cellular Location**
Cytoplasm {ECO:0000250|UniProtKB:P21695}.

## Anti-GLYCEROL-3-PHOSPHATE DEHYDROGENASE (GOAT) Antibody Peroxidase Conjugated - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

## Anti-GLYCEROL-3-PHOSPHATE DEHYDROGENASE (GOAT) Antibody Peroxidase Conjugated - Images

## Anti-GLYCEROL-3-PHOSPHATE DEHYDROGENASE (GOAT) Antibody Peroxidase Conjugated - 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 arrythmia

during infancy.