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Datasheet for 200-103-210

Glycerol-3-Phosphate Dehydrogenase Antibody Peroxidase Conjugated

Overview

Description:	Anti-Glycerol-3-Phosphate Dehydrogenase (GOAT) Antibody Peroxidase Conjugated (BULK ORDER) - 200-103-210
Item No.:	200-103-210
Size:	20 mg
Applications:	WB
Reactivity:	Rabbit
Host Species:	Goat

Product Details

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.
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
Host Species:	Goat
Conjugate:	Peroxidase (HRP)
Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name:	GPD1
Reactivity:	Rabbit
Immunogen Type:	Native Protein
Immunogen:	Glycerol-3-Phosphate-Dehydrogenase [Rabbit Muscle]
Purity/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.
Relevant Links:	• UniProtKB - P08507 • NCBI - 3043365 • GeneID - 100339469

Application Details

Tested Applications:	WB
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.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	1:10,000 - 1:40,000
WB:	1:1,000 - 1:5,000

Formulation

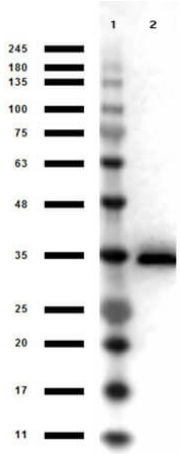
Physical State:	Lyophilized
Concentration:	10 mg/mL by UV absorbance at 280 nm
Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2

Preservative:	0.01% (w/v) Gentamicin Sulfate. Do NOT add Sodium Azide!
Stabilizer:	10 mg/mL Bovine Serum Albumin (BSA) - Immunoglobulin and Protease free
Reconstitution Volume:	2.0 mL
Reconstitution Buffer:	Restore with deionized water (or equivalent)

Shipping & Handling

Shipping Condition:	Ambient
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.
Expiration:	Expiration date is one (1) year from date of receipt.

Images



Western Blot
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.

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