

Datasheet for 200-103-210S

Glycerol-3-Phosphate Dehydrogenase Antibody Peroxidase Conjugated

Overview

Description:	Anti-Glycerol-3-Phosphate Dehydrogenase (GOAT) Antibody Peroxidase Conjugated - 200-103-210S
Item No.:	200-103-210S
Size:	25 µL
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 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
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 • GenelD - 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:	1:1,000 - 1:5,000
WB:	1:500 - 1:2,500

Formulation

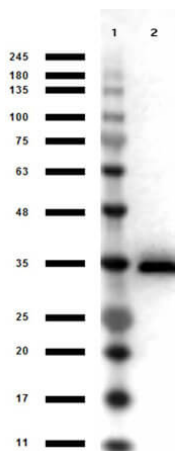
Physical State:	Liquid (sterile filtered)
Concentration:	1.0 mg/mL by UV absorbance at 280 nm
Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2

Preservative:	0.01% (w/v) Gentamicin Sulfate. Do NOT add Sodium Azide!
Stabilizer:	10 mg/mL Bovine Serum Albumin (BSA) - Immunoglobulin and Protease free

Shipping & Handling

Shipping Condition:	Dry Ice
Storage Condition:	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.
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.

Disclaimer

This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information. All products of animal origin manufactured by Rockland Immunochemicals are derived from starting materials of North American origin. Collection was performed in United States Department of Agriculture (USDA) inspected facilities and all materials have been inspected and certified to be free of disease and suitable for exportation. All properties listed are typical characteristics and are not specifications. All suggestions and data are offered in good faith but without guarantee as conditions and methods of use of our products are beyond our control. All claims must be made within 30 days following the date of delivery. The prospective user must determine the suitability of our materials before adopting them on a commercial scale. Suggested uses of our products are not recommendations to use our products in violation of any patent or as a license under any patent of Rockland Immunochemicals, Inc. If you require a commercial license to use this material and do not have one, then return this material, unopened to: Rockland Inc., P.O. BOX 5199, Limerick, Pennsylvania, USA.