For Research Use Only

GPD1 Recombinant antibody, PBS Only (Capture)

Catalog Number:84800-1-PBS

proteintech®
Antibodies | ELISA kits | Proteins
Uni-rAb
www.ptglab.com

Basic Information

Catalog Number:
84800-1-PBS

Size:
100ug , Concentration: 1 mg/ml by Nanodrop;

Source:
Rabbit

Isotype:
IgG

Immunogen Catalog Number:
AG4278

GenBank Accession Number:
BC032234

GeneID (NCBI):
2819

UNIPROT ID:
P21695

Full Name:
glycerol-3-phosphate dehydrogenase 1 (soluble)

Calculated MW:
349 aa, 38 kDa

Observed MW:
32 kDa

Purification Method:
Protein A purification

CloneNo.:
242359D3

Applications

Tested Applications:
WB, IF/ICC, Cytometric bead array, Indirect ELISA

Species Specificity:
human, mouse

Product Information

84800-1-PBS targets GPD1 as part of a matched antibody pair:

MP01579-1: 84800-1-PBS capture and 84800-2-PBS detection (validated in Cytometric bead array)

Unconjugated rabbit recombinant monoclonal antibody in PBS only (BSA and azide free) storage buffer at a concentration of 1 mg/mL, ready for conjugation. Created using Proteintech's proprietary in-house recombinant technology. Recombinant production enables unrivalled batch-to-batch consistency, easy scale-up, and future security of supply.

This conjugation ready format makes antibodies ideal for use in many applications including: ELISAs, multiplex assays requiring matched pairs, mass cytometry, and multiplex imaging applications.Antibody use should be optimized by the end user for each application and assay.

Background Information

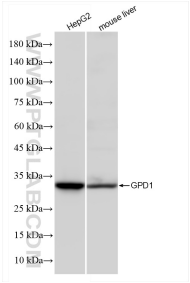
GPD1 (Glycerol-3-phosphate dehydrogenase 1) is an important enzyme belonging to the NAD-dependent glycerol-3-phosphate dehydrogenase family. Its C-terminal structural domain contains multiple helical structures for binding the substrate DHAP, and its N-terminal structural domain contains a β-folded core for binding NADH. GPD1 catalyzes the conversion of dihydroxyacetone phosphate (DHAP) and reduced nicotinamide adenine dinucleotide (NADH) to glycerol-3-phosphate (G3P) and NAD+, and plays a key role in carbohydrate and lipid metabolism. GPD1 also works with mitochondrial glycerol-3-phosphate dehydrogenase to form a glycerophosphate shuttle system that facilitates the transfer of reducing equivalents from the cytoplasm to the mitochondria. Abnormal activity of GPD1 has been associated with a variety of metabolic disorders, such as obesity, hypertriglyceridemia, and GPD1 has been implicated in cancer, potentially acting as a tumor suppressor.

Storage

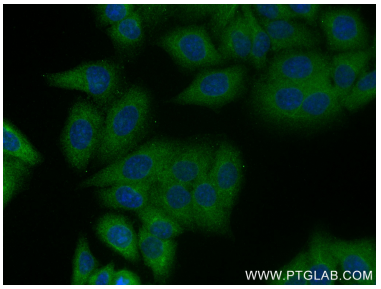
Storage:
Store at -80°C.
Storage Buffer:
PBS Only

For technical support and original validation data for this product please contact:
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)
E: proteintech@ptglab.com
W: ptglab.com

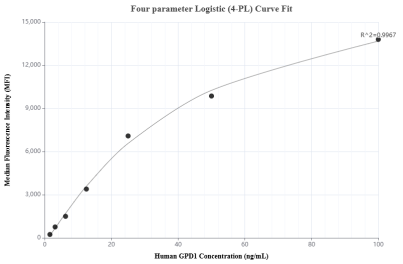
Selected Validation Data



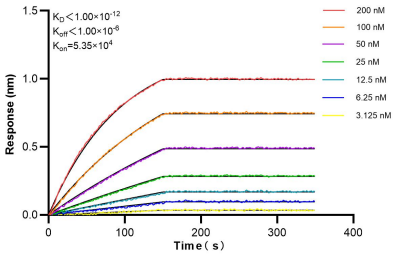
Various lysates were subjected to SDS PAGE followed by western blot with 84800-1-RR (GPD1 antibody) at dilution of 1:1000 incubated at room temperature for 1.5 hours. This data was developed using the same antibody clone with 84800-1-PBS in a different storage buffer formulation.



Immunofluorescent analysis of (-20°C Ethanol) fixed HepG2 cells using GPD1 antibody (84800-1-RR, Clone: 242359D3) at dilution of 1:200 and CoraLite®488-Conjugated Goat Anti-Rabbit IgG(H+L) (SA00013-2). This data was developed using the same antibody clone with 84800-1-PBS in a different storage buffer formulation.



Cytometric bead array standard curve of MP01579-1, GPD1 Recombinant Matched Antibody Pair, PBS Only. Capture antibody: 84800-1-PBS. Detection antibody: 84800-2-PBS. Standard: Ag4278. Range: 1.563-100 ng/mL.



Biolayer interferometry (BLI) kinetic assays of 84800-1-RR against Human GPD1 were performed. The affinity constant is below 1 pM.