

GPD1 Recombinant antibody

Catalog Number: 84800-4-RR

Basic Information

Catalog Number:

84800-4-RR

Concentration:

1000 µg/ml

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.:

242359C4

Recommended Dilutions:

WB 1:1000-1:6000

Applications

Tested Applications:

WB, ELISA

Species Specificity:

human, mouse

Positive Controls:

WB : HepG2 cells, mouse heart tissue

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:

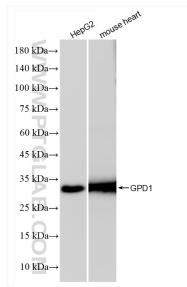
Store at -20°C. Stable for one year after shipment.

Storage Buffer:

PBS with 0.02% sodium azide and 50% glycerol pH 7.3.

Aliquoting is unnecessary for -20°C storage

Selected Validation Data



Various lysates were subjected to SDS PAGE followed by western blot with 84800-4-RR (GPD1 antibody) at dilution of 1:3000 incubated at room temperature for 1.5 hours.