

For Research Use Only

CoraLite® Plus 488-conjugated GPD1 Recombinant antibody

Catalog Number: CL488-84800



Basic Information

Catalog Number: CL488-84800	GenBank Accession Number: BC032234	Purification Method: Protein A purification
Concentration: 1000 ug/ml	GeneID (NCBI): 2819	CloneNo.: 242359D3
Source: Rabbit	UNIPROT ID: P21695	Recommended Dilutions: IF/ICC: 1:50-1:500
Isotype: IgG	Full Name: glycerol-3-phosphate dehydrogenase 1 (soluble)	Excitation/Emission maxima wavelengths: 493 nm / 522 nm
Immunogen Catalog Number: AG4278	Calculated MW: 349 aa, 38 kDa	
	Observed MW: 32 kDa	

Applications

Tested Applications: IF/ICC	Positive Controls: IF/ICC : HepG2 cells,
Species Specificity: human, mouse	

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. Avoid exposure to light. Stable for one year after shipment.
Storage Buffer:
PBS with 50% glycerol, 0.05% Proclin300, 0.5% BSA, pH7.3
Aliquoting is unnecessary for -20°C storage

For technical support and original validation data for this product please contact:

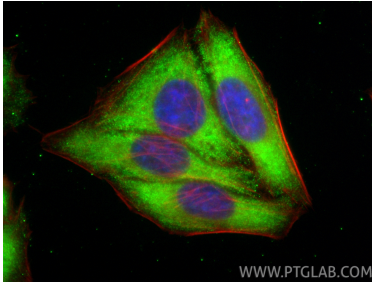
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Selected Validation Data



Immunofluorescent analysis of (-20°C Ethanol) fixed HepG2 cells using CoraLite® Plus 488 GPD1 antibody (CL488-84800, Clone: 242359D3) at dilution of 1:200, CL594-Phalloidin (red).