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Glucose 6 phosphatase 2 Rabbit pAb

Catalog # AP96174

Product Information

Application	WB
Reactivity	Rat, Mouse
Predicted	Human, Rabbit, Dog, Horse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	41 KDa
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human Glucose 6 phosphatase 2
Epitope Specificity	191-290/355
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Endoplasmic reticulum membrane; Multi-pass membrane protein.
SIMILARITY	Belongs to the glucose-6-phosphatase family.
Post-translational modifications	N-glycosylated; the non-glycosylated form is more unstable and is degraded through the proteasome.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	Glucose-6-phosphatase (G6Pase), is a multicomponent enzyme system that hydrolyzes glucose-6-phosphate in the final step of gluconeogenesis and gluconeolysis. G6Pase localizes to the endoplasmic reticulum, and while liver, kidney, and intestine are the only tissues that express the first identified isoform, G6Pase-alpha, a second form, designated G6Pase-∫, contributes to blood glucose homeostasis in a wider range of tissues. Islet-specific G-6-Pase catalytic subunit-related protein (IGRP), a homolog of the catalytic subunit of G6Pase, may play a role in the regulation of islet metabolism and in insulin secretion induced by metabolites. The exact catalytic acivity of IGRP is not defined. Identification of inhibitors of IGRP have potential therapeutic benefits for treatment of type 2 diabetes resulting from insulin secretion defects. Structurally, IGRP has been shown to be a glycoprotein held in the endoplasmic reticulum by nine transmembrane domains, which are then degraded in cells through the proteasome pathway generating MHC class I presented peptides.

Additional Information

Gene ID	57818
Other Names	IGRP; glucose-6-phosphatase catalytic subunit 2; glucose-6-phosphatase, catalytic, 2; islet specific glucose 6 phosphatase catalytic subunit related protein

Target/Specificity	Specifically expressed in pancreas and also detected to a lower extent in testis. Expressed by most islet cells in the pancreas (at protein level).
Dilution	WB=1:500-2000
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
Name	Glucose 6 phosphatase 2 Rabbit pAb
Function	IGRP (islet specific glucose 6 phosphatase catalytic subunit related protein), also known as G6PC2, belongs to the glucose-6-phosphatase catalytic subunit family. These enzymes are part of a multicomponent integral membrane system that catalyses the hydrolysis of glucose-6-phosphate. This hydrolysis is the terminal step in gluconeogenic and glycogenolytic pathways, and allows the release of glucose into the bloodstream. IGRP is found in pancreatic islets and does not exhibit phosphohydrolase activity. However, it is a major target of cell-mediated autoimmunity in diabetes.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.