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SLC37A4 Polyclonal Antibody

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP58120

Product Information

Application	WB, IHC-P, IHC-F, IF, E
Primary Accession	O43826
Reactivity	Rat, Pig, Dog, Bovine
Host	Rabbit
Clonality	Polyclonal
Calculated MW	46360
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human G6PT2
Epitope Specificity	25-130/429
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 major facilitator superfamily. Organophosphate:Pi antiporter (OPA) (TC 2.A.1.4) family.
DISEASE	Defects in SLC37A4 are the cause of glycogen storage disease type 1B (GSD1B) [MIM:232220]. GSD1B is a metabolic disorder characterized by impairment of terminal steps of glycogenolysis and gluconeogenesis. GSD1 patients manifest a wide range of clinical symptoms and biochemical abnormalities, including hypoglycemia, severe hepatomegaly due to excessive accumulation of glycogen, kidney enlargement, growth retardation, lactic acidemia, hyperlipidemia, and hyperuricemia. GSD1B patients also present a tendency towards infections associated with neutropenia, relapsing aphthous gingivostomatitis, and inflammatory bowel disease.Defects in SLC37A4 are the cause of glycogen storage disease type 1C (GSD1C) [MIM:232240]. Defects in SLC37A4 are the cause of glycogen storage disease type 1D (GSD1D) [MIM:232240].
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	SLC37A4 transports glucose-6-phosphate from the cytoplasm to the lumen of the endoplasmic reticulum. It forms a complex with glucose-6-phosphatase which is responsible for glucose production through glycogenolysis and gluconeogenesis. Hence, it plays a central role in homeostatic regulation of blood glucose levels.

Additional Information

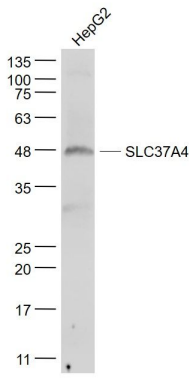
Gene ID	2542
Other Names	Glucose-6-phosphate exchanger SLC37A4, Glucose-5-phosphate transporter, Glucose-6-phosphate translocase, Solute carrier family 37 member 4

	{ECO:0000312|HGNC:HGNC:4061}, Transformation-related gene 19 protein {ECO:0000312|EMBL:AAS00495.1}, TRG-19 {ECO:0000312|EMBL:AAS00495.1}, SLC37A4 (HGNC:4061), G6PT, G6PT1
Target/Specificity	Mostly expressed in liver and kidney
Dilution	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500,ELISA=1:5000-10000
Format	0.01M TBS(pH7.4) with 1% BSA, 0.09% (W/V) sodium azide and 50% Glyce
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.

Protein Information

Name	SLC37A4 (HGNC:4061)
Synonyms	G6PT, G6PT1
Function	Inorganic phosphate and glucose-6-phosphate antiporter of the endoplasmic reticulum. Transports cytoplasmic glucose-6-phosphate into the lumen of the endoplasmic reticulum and translocates inorganic phosphate into the opposite direction (PubMed:33964207). Forms with glucose-6-phosphatase the complex responsible for glucose production through glycogenolysis and gluconeogenesis. Hence, it plays a central role in homeostatic regulation of blood glucose levels.
Cellular Location	Endoplasmic reticulum membrane; Multi-pass membrane protein
Tissue Location	Mostly expressed in liver and kidney.

Images



Sample:
HepG2 (Human) Cell Lysate at 30 ug
Primary: Anti- SLC37A4 (AP58120) at 1/1000 dilution
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution
Predicted band size: 46 kD
Observed band size: 48 kD