Datasheet for ABIN5596789

anti-SLC2A2 antibody (C-Term)

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Overview

Quantity:	100 µL
Target:	SLC2A2
Binding Specificity:	C-Term
Reactivity:	Mouse
Host:	Rabbit
Clonality:	Polyclonal
Application:	Western Blotting (WB), ELISA, Immunohistochemistry (IHC)

Product Details

Purpose:	Glut2 Antibody
Immunogen:	Immunogen: This antibody was prepared from whole rabbit serum produced by repeated immunizations with a synthetic peptide corresponding to the C-terminal domain of mouse Glut2 protein. Immunogen Type: Conjugated Peptide
Isotype:	IgG
Cross-Reactivity (Details):	Glut-2 antibody is directed against Glut2 protein.
Characteristics:	Synonyms: rabbit anti-Glut2 antibody, Solute carrier family 2, facilitated glucose transporter member 2, Glucose transporter type 2, liver-GLUT-2, Slc2a2, Glut2 Antibody
Purification:	The product is delipidated and defibrinated antiserum.
Sterility:	Sterile filtered

Target Details

Target:	SLC2A2
Alternative Name:	Slc2a2 (SLC2A2 Products)
Background:	Background: The Anti-Glut2 antibody was designed, produced, and validated as part of the Joy Cappel Young Investigator Award (JCYIA). The glucose transporter GLUT2 is a transmembrane carrier protein that allows protein facilitated glucose movement across cell membranes. GLUT2 is expressed in the plasma membranes of the liver, intestine, renal tubular cells, pancreatic islet beta cells, as well as in the portal and hypothalamic areas. Due to its low affinity and high capacity, GLUT2 transports dietary sugars, glucose, galactose and fructose in high concentrations, displaying large bidirectional fluxes in and out of cells. In pancreatic beta cells, GLUT2 is essential for glucose-stimulated insulin secretion. GLUT2 expression is necessary for the physiological control of glucose-sensitive genes, and its inactivation in the liver leads to impaired glucose-stimulated insulin secretion. In the nervous system, GLUT2-dependent glucose sensing regulates feeding, thermoregulation and pancreatic islet cell mass and function, as well as sympathetic and parasympathetic activities. In humans, inactivating mutations in GLUT2 cause Fanconi-Bickel syndrome, which is characterized by hepatomegaly and kidney disease. Anti-Glut2 is ideal for researchers interested in studying glucose transport mediated by Glut2 protein in the fields of diabetes, obesity, metabolism, and neuroscience research.
Gene ID:	20526
NCBI Accession:	NP_112474
UniProt:	P14246
Pathways:	Warburg Effect

Application Details

Application Notes:	Immunohistochemistry Dilution: 4 µg/mL Application Note: Glut-2 antibody has been tested for use in ELISA and by western blot. Specific conditions for reactivity should be optimized by the end user. Expect a band approximately 57.1 kDa in size corresponding to Glut2 protein by western blotting in the appropriate stimulated tissue or cell lysate or extract. This antibody is suitable for immunohistochemistry. Western Blot Dilution: 1:500-1:1000 ELISA Dilution: 1:30,000 - 1:90,000
Restrictions:	For Research Use only

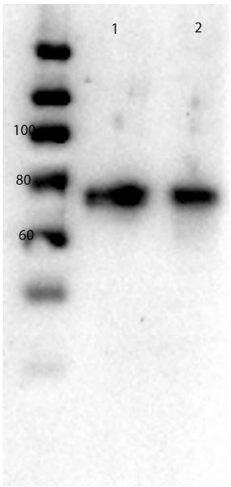
Handling

Format:	Liquid
Concentration:	80 mg/mL
Buffer:	Buffer: 0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2 Stabilizer: None Preservative: 0.01 % (w/v) Sodium Azide
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	4 °C,-20 °C
Storage Comment:	Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.
Expiry Date:	12 months

Publications

Product cited in:	Chhabra, Adams, Fagel, Lam, Qi, Rubinstein, Low: "Hypothalamic POMC Deficiency Improves Glucose Tolerance Despite Insulin Resistance by Increasing Glycosuria." in: **Diabetes**, Vol. 65, Issue 3, pp. 660-72, (2016) (PubMed).

Images



Western Blotting

Image 1. Western Blot of Rabbit anti-Glut2 antibody. Lane 1: mouse liver lysate. Lane 2: mouse pancreas lysate. Load: 10µg per lane. Primary antibody: Glut2 antibody at 1:500 for overnight at 4°C. Secondary antibody: Peroxidase rabbit secondary antibody at 1:40,000 for 30 min at RT. Block: 0.75% Casein/TBS overnight at 4°C. Predicted/Observed size: 57.1 kDa.