

## **Product datasheet for TA397444S**

## **Slc2a2 Rabbit Polyclonal Antibody**

## **Product data:**

**Product Type:** Primary Antibodies

**Applications:** ELISA, IHC, WB

Recommended Dilution: WB: 1:500-1:1000

IHC: 4µg/mL

ELISA: 1:30,000 - 1:90:000

Reactivity: Human, Mouse

**Host:** Rabbit

Clonality: Polyclonal

**Immunogen:** This affinity-purified 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.

**Specificity:** This affinity-purified Glut-2 antibody is directed against Glut2 protein. The product was

affinity purified from monospecific antiserum by immunoaffinity purification. A BLAST

analysis was used to suggest cross-reactivity with Glut2 from mouse and rat based on a 100% homology with the immunizing sequence. Reactivity against homologues from other sources

is not known.

**Formulation:** 0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2

**Concentration:** 1.0 mg/mL - lot specific

**Conjugation:** Unconjugated

**Storage:** Store vial at -20° C or below prior to opening. This vial contains a relatively low volume of

reagent (25  $\mu$ L). To minimize loss of volume dilute 1:10 by adding 225  $\mu$ L of the buffer stated above directly to the vial. Recap, mix thoroughly and briefly centrifuge to collect the volume at the bottom of the vial. Use this intermediate dilution when calculating final dilutions as recommended below. Store the vial at -20°C or below after dilution. Avoid cycles of freezing

and thawing.

**Stability:** Expiration date is one (1) year from date of receipt.

**Gene Name:** solute carrier family 2 (facilitated glucose transporter), member 2

Database Link: Entrez Gene 20526 Mouse

P14246



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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, GLUT2dependent 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.

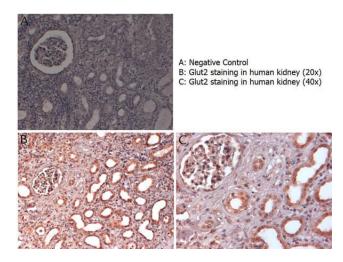
Synonyms:

rabbit anti-Glut2 antibody, Solute carrier family 2 facilitated glucose transporter member 2, Glucose transporter type 2 liver, GLUT-2 antibody, Slc2a2, Glut 2 Antibody

Note:

Anti-Glut-2 antibody has been tested for use in ELISA, immunohistochemistry, immunofluorescence, 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.

## **Product images:**



Immunohistochemistry with anti-Glut2 antibody showing Glut2 staining in nucleus and cytoplasm of ductal epithelium and of renal glomeruli in human kidney at 20x and 40x (B & C). Formalin fixed/paraffin embedded sections were subjected to heat induced epitope retrieval (HIER) at pH 6.2 and then incubated with rabbit anti-mouse Glut2 antibody at 4.0  $\mu$ g/ml for 60 minutes. The reaction was developed using MACH 1 universal HRP polymer detection system and visualized with 3'3-diamino-benzidine substrate (DAB).