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Datasheet for 600-401-BL8

GLS2 Antibody

Overview

Description:	Anti-GLS2 (RABBIT) Antibody - 600-401-BL8
Item No.:	600-401-BL8
Size:	100 µg
Applications:	ELISA, IF, IHC, WB
Reactivity:	Human, Mouse, Rat
Host Species:	Rabbit

Product Details

Background:	Phosphate-activated glutaminase, also known as Glutaminase 2 (GLS2), was initially isolated from rat liver, although it has been shown to be expressed in other tissues. Like the functionally similar, larger kidney glutaminase, GLS2 catalyzes the hydrolysis of glutamine to stoichiometric amounts of glutamate and ammonia. Expression of GLS2 is increased by p53 under both stressed and nonstressed conditions, resulting in increased levels of glutamate and alpha-ketoglutarate, which in turn results in enhanced mitochondrial respiration and ATP generation. GLS2 also regulates antioxidant defense function in cells by increasing reduced glutathione levels and decreasing ROS-levels, suggesting that GLS2 acts as a mediator of p53's role in antioxidant defense in addition to its role in energy metabolism.
Synonyms:	GLS2 Antibody, GA, GLS, LGA, hLGA, GA, Glutaminase liver isoform, mitochondrial, L-glutaminase
Host Species:	Rabbit
Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name:	GLS2
Reactivity:	Human, Mouse, Rat
Immunogen Type:	Conjugated Peptide

Immunogen:	Anti-GLS2 antibody was prepared from whole rabbit serum produced by repeated immunizations with a 18 amino acid synthetic peptide near the internal region terminus of human GLS2.
Purity/Specificity:	Anti-GLS2 Antibody was affinity purified from monospecific antiserum by immunoaffinity chromatography. GLS2 antibody is predicted to not cross-react with other catenin family members. Multiple isoforms of GLS2 are known to exist.
Relevant Links:	• UniProtKB - Q9UI32 • GeneID - 27165 • NCBI - NP_037399

Application Details

Tested Applications:	ELISA, IF, IHC, WB
Application Note:	Anti-GLS2 Antibody has been tested for use in ELISA, Western Blotting, Immunohistochemistry-P, and Immunofluorescence. Specific conditions for reactivity should be optimized by the end user. Expect a band at approximately 66 kDa in Western Blots of specific cell lysates and tissues. Positive control: Human pancrease tissue, mouse liver tissue, rat brain tissue.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	1:5000 - 1:10000
IF:	10-20 µg/mL
IHC:	0.5-2 µg/mL
WB:	0.5-2 µg/mL

Formulation

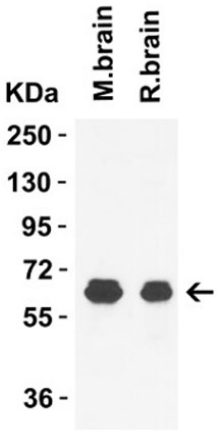
Physical State:	Liquid (sterile filtered)
Concentration:	1.0 mg/ml by UV absorbance at 280 nm
Buffer:	0.01 M Sodium Phosphate, 0.25 M Sodium Chloride, pH 7.2
Preservative:	0.02% (w/v) Sodium Azide
Stabilizer:	None

Shipping & Handling

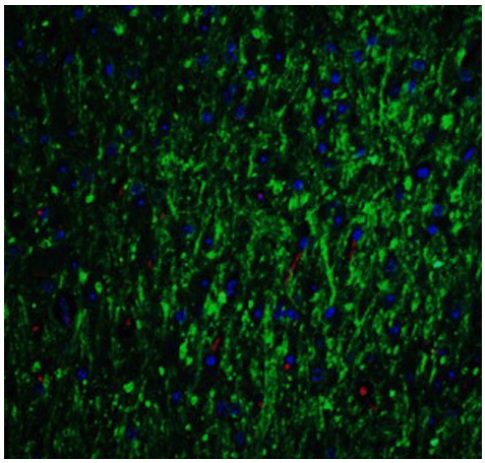
Shipping Condition:	Wet Ice

Storage Condition:	Antibody can be stored at 4°C up to one year. Antibodies should not be exposed to prolonged high temperatures.
Expiration:	Expiration date is one (1) year from date of receipt.

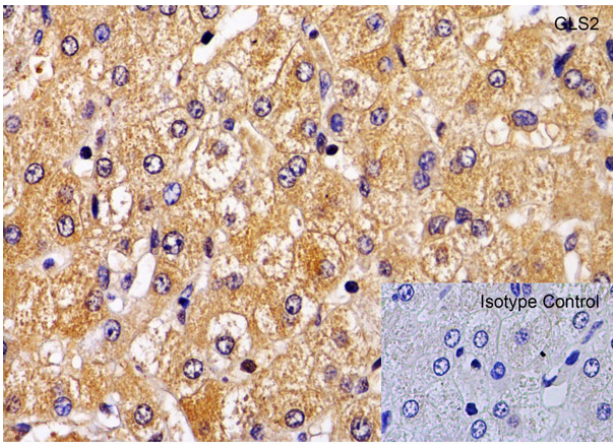
Images



Western Blot
Western Blot Validation of GLS2.
Load: 15 µg of mouse brain lysate (lane 1) or rat brain lysate (lane 2).
Primary Antibody: GLS2 at 1 µg/mL for 1 h incubation at RT in 5% NFDM/TBST.
Secondary: Goat Anti-Rabbit IgG HRP conjugate at 1:10000 dilution.

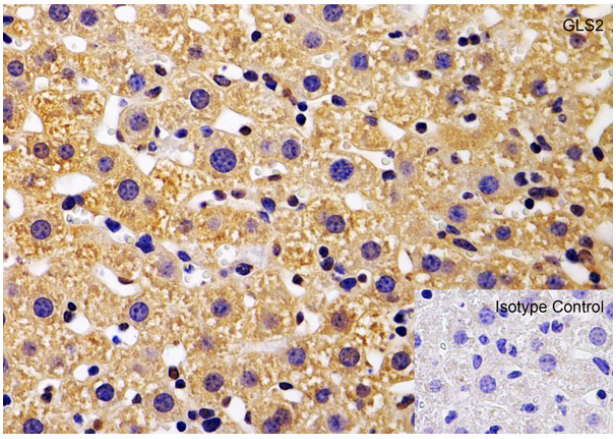


Immunofluorescence Microscopy
Immunofluorescence Validation of GLS2.
Tissue: Mouse Brain.
Fixation: 4% paraformaldehyde-fixed.
Primary Antibody: GLS2 at 20 µg/mL.
Secondary: goat anti-rabbit IgG antibody at 1:500 dilution (green) and DAPI antibody (blue).



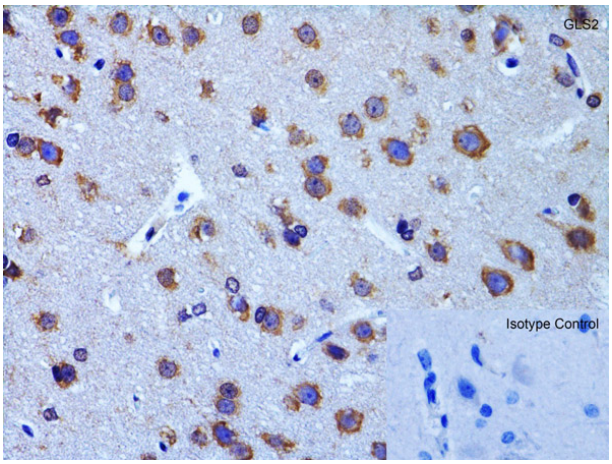
Immunohistochemistry
Immunohistochemistry Validation of GLS2.
Tissue: Human Liver.
Fixation: paraffin-embedded, formaldehyde and blocked with 10% serum for 1 h at RT.
Antigen retrieval: heat mediation with a citrate buffer (pH6).

Primary Antibody: anti-GLS2 antibody at 1 µg/ml overnight at 4°C.
Secondary: goat anti-rabbit IgG H&L (HRP) at 1:250. Counter stained with Hematoxylin.

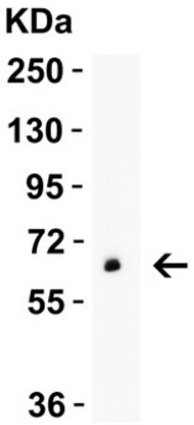


Immunohistochemistry
Immunohistochemistry Validation of GLS2.
Tissue: Mouse Liver.
Fixation: paraffin-embedded, formaldehyde and blocked with 10% serum for 1 h at RT.
Antigen retrieval: heat mediation with a citrate buffer (pH6).

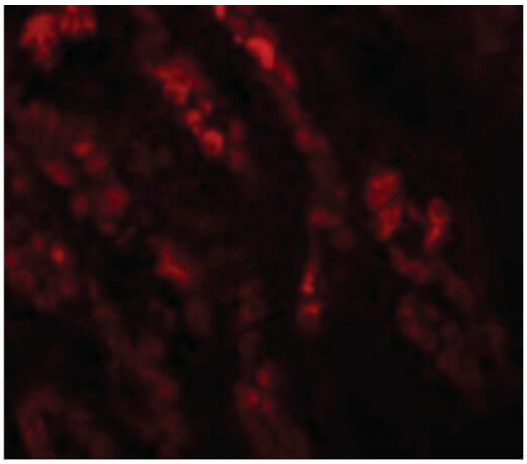
Primary Antibody: anti-GLS2 antibody at 1 µg/ml overnight at 4°C.
Secondary: goat anti-rabbit IgG H&L (HRP) at 1:250. Counter stained with Hematoxylin.



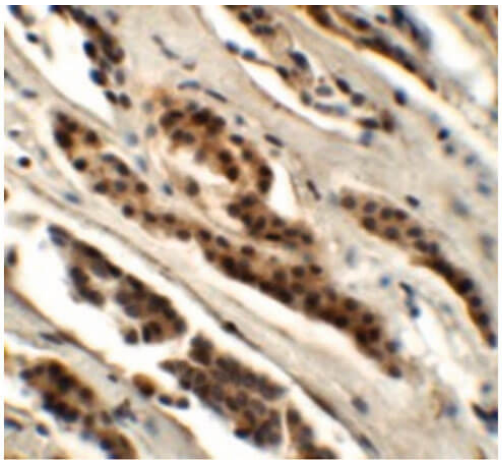
Immunohistochemistry
Immunohistochemistry Validation of GLS2.
Tissue: Rat Brain.
Fixation: paraffin-embedded, formaldehyde and blocked with 10% serum for 1 h at RT.
Antigen retrieval: heat mediation with a citrate buffer (pH6).
Primary Antibody: anti-GLS2 antibody at 2 µg/ml overnight at 4°C.
Secondary: goat anti-rabbit IgG H&L (HRP) at 1:250. Counter stained with Hematoxylin.



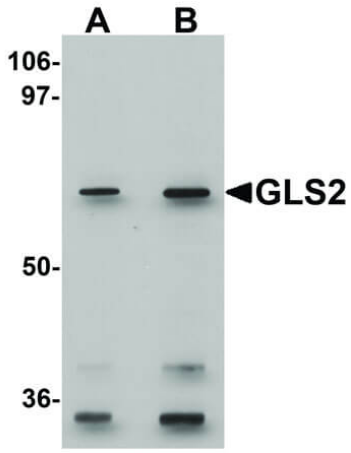
Western Blot
Western Blot Validation of GLS2.
Load: 10 µg of human pancreas lysate.
Primary Antibody: GLS2 at 2 µg/mL for 1 h incubation at RT in 5% NFDM/TBST.
Secondary: Goat Anti-Rabbit IgG HRP conjugate at 1:10000 dilution.



Immunofluorescence Microscopy
Immunofluorescence Microscopy of Rabbit anti-GLS2 antibody. Tissue: Human Kidney cells. Primary antibody: GLS2 antibody at 20 µg/mL. Secondary antibody: Fluorescein rabbit secondary antibody at 1:20,000. Localization: GLS2 is located in the mitochondrion. Staining: GLS2 as red fluorescent signal.



Immunohistochemistry
Immunohistochemistry of Rabbit anti-GLS2 antibody. Tissue: human kidney tissue. Primary antibody: GLS2 antibody at 5.0 µg/mL. Secondary antibody: Rabbit secondary antibody at 1:5,000 Localization: GLS2 is located in the mitochondrion. Staining: GLS2 as precipitated purple signal.



Western Blot

Western Blot of Rabbit anti-GLS2 antibody. Lane A: rat kidney tissue lysate at 0.5 µg/mL. Lane B: rat kidney tissue lysate at 1µg/mL. Primary antibody: GLS2 antibody overnight at 4°C. Secondary antibody: anti-Rabbit HRP secondary antibody. Block: 5% BLOTTO. Predicted/Observed size: 66 kDa for GLS2 antibody.

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