

Anti-GLS2 Antibody

Catalog Number: A05334

About GLS2

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.

Overview

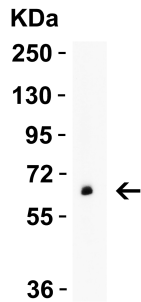
Product Name	Anti-GLS2 Antibody
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-GLS2 Antibody (Catalog # A05334). Tested in ELISA, WB, IHC-P, IF applications. This antibody reacts with Human, Mouse, Rat.
Application	ELISA, IF, IHC-P, WB
Clonality	Polyclonal
Formulation	GLS2 Antibody is supplied in PBS containing 0.02% sodium azide.
Storage Instructions	GLS2 antibody can be stored at 4°C up to one year. Antibodies should not be exposed to prolonged high temperatures.
Host	Rabbit
Uniprot ID	Q9UI32

Technical Details

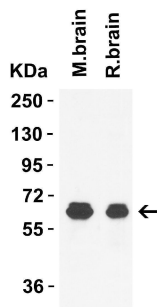
Immunogen	GLS2 antibody was raised against an 18 amino acid synthetic peptide near the center terminus of human GLS2. The immunogen is located within amino acids 300 - 350 of GLS2.
Predicted Reactive Species	Rat
Cross Reactivity	Multiple isoforms of GLS2 are known to exist.
Isotype	IgG
Form	Liquid
Concentration	1 mg/mL

Purification	GLS2 Antibody is affinity chromatography purified via peptide column.
Suggested Dilutions	WB: 0.5-2 ug/mL; IHC-P: 0.5-2 ug/mL; IHC-P/IF: 10-20 ug/mL. Antibody validated: Western Blot in human, mouse and rat samples; Immunohistochemistry in human, mouse, and rat samples; Immunofluorescence in mouse samples. All other applications and species not yet tested.

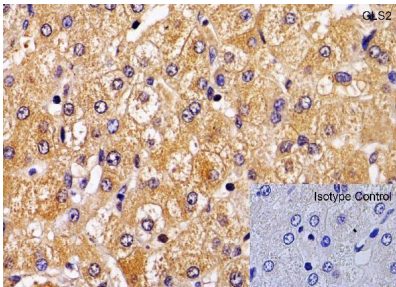
Anti-GLS2 Antibody (A05334) Images



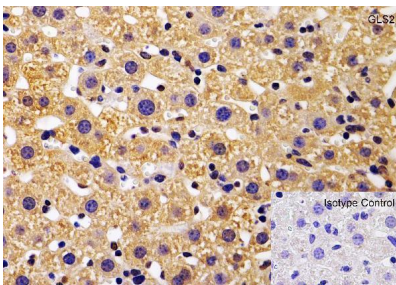
WB Validation in Human Pancreas Loading: 10 ug of lysate
Antibodies: GLS2, A05334, 2 u g/mL , 1 h incubation at RT in 5% NFDm/TBST. Secondary: Goat Anti-Rabbit IgG HRP conjugate at 1:10000 dilution.



WB Validation in Mouse and Rat Brain Loading: 15 ug of lysate
Antibodies: GLS2, A05334, 1 ug/mL , 1 h incubation at RT in 5% NFDm/TBST. Secondary: Goat Anti-Rabbit IgG HRP conjugate at 1:10000 dilution.

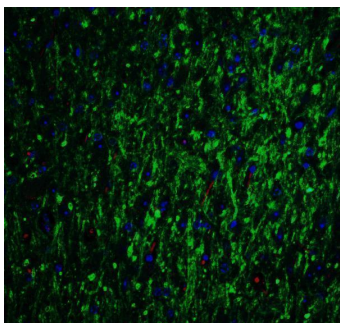
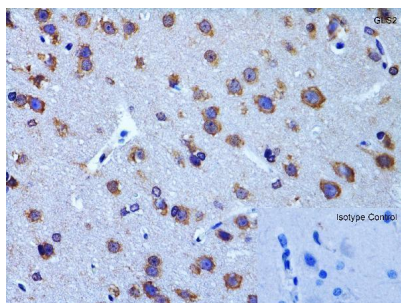


Immunohistochemistry Validation of GLS2 in Human Liver
Immunohistochemical analysis of paraffin-embedded human liver tissue using anti-GLS2 antibody (A05334) at 1 ug/ml. Tissue was fixed with formaldehyde and blocked with 10% serum for 1 h at RT; antigen retrieval was by heat mediation with a citrate buffer (pH6). Samples were incubated with primary antibody overnight at 4°C. A goat anti-rabbit IgG H&L (HRP) at 1/250 was used as secondary. Counter stained with Hematoxylin.



Immunohistochemistry Validation of GLS2 in Mouse Liver
Immunohistochemical analysis of paraffin-embedded mouse liver tissue using anti-GLS2 antibody (A05334) at 1 ug/ml. Tissue was fixed with formaldehyde and blocked with 10% serum for 1 h at RT; antigen retrieval was by heat mediation with a citrate buffer (pH6). Samples were incubated with primary antibody overnight at 4°C. A goat anti-rabbit IgG H&L (HRP) at 1/250 was used as secondary. Counter stained with Hematoxylin.

Immunohistochemistry Validation of GLS2 in Rat Brain
Immunohistochemical analysis of paraffin-embedded rat brain tissue using anti-GLS2 antibody (A05334) at 2 ug/ml. Tissue was fixed with formaldehyde and blocked with 10% serum for 1 h at RT; antigen retrieval was by heat mediation with a citrate buffer (pH6). Samples were incubated with primary antibody overnight at 4°C. A goat anti-rabbit IgG H&L (HRP) at 1/250 was used as secondary. Counter stained with Hematoxylin.



Immunofluorescence Validation of GLS2 in Mouse Brain
Immunofluorescent analysis of 4% paraformaldehyde-fixed mouse brain labeling GLS2 with A05334 at 20 ug g/mL, followed by goat anti-rabbit IgG secondary antibody at 1/500 dilution (green) and DAPI antibody (blue).

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Anti-GLS2 Antibody

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