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# GLS2 Antibody (C-term E513)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP6650D

## Product Information

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| **Application** | WB, IHC-P-Leica, E |
| **Primary Accession** | Q9UI32 |
| **Other Accession** | P28492, Q571F8, NP_037399.2 |
| **Reactivity** | Human, Rat, Mouse |
| **Predicted** | Rat, Bovine, Canine, Rabbit, Chicken |
| **Host** | Rabbit |
| **Clonality** | Polyclonal |
| **Isotype** | Rabbit IgG |
| **Clone Names** | RB20072 |
| **Calculated MW** | 66323 |
| **Antigen Region** | 498-524 |

## Additional Information

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| **Gene ID** | 27165 |
| **Other Names** | Glutaminase liver isoform, mitochondrial, GLS, L-glutaminase, L-glutamine amidohydrolase, GLS2, GA |
| **Target/Specificity** | This GLS2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 498-524 amino acids of human GLS2. |
| **Dilution** | WB~~1:1000 IHC-P-Leica~~1:500 E~~Use at an assay dependent concentration. |
| **Format** | Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification. |
| **Storage** | Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles. |
| **Precautions** | GLS2 Antibody (C-term E513) is for research use only and not for use in diagnostic or therapeutic procedures. |

## Protein Information

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| **Name** | GLS2 |
| **Synonyms** | GA |

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| **Function** | Plays an important role in the regulation of glutamine catabolism. Promotes mitochondrial respiration and increases ATP generation in cells by catalyzing the synthesis of glutamate and alpha- ketoglutarate. Increases cellular anti-oxidant function via NADH and glutathione production. May play a role in preventing tumor proliferation. |
| **Cellular Location** | Mitochondrion. |
| **Tissue Location** | Highly expressed in liver. Expressed in brain and pancreas. Not observed in heart, placenta, lung, skeletal muscle and kidney. Expression is significantly reduced in hepatocellular carcinomas. |

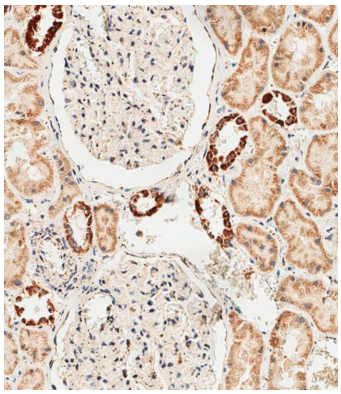
## Background

The protein encoded by this gene is a mitochondrial phosphate-activated glutaminase that catalyzes the hydrolysis of glutamine to stoichiometric amounts of glutamate and ammonia. This protein is functionally similar to the kidney glutaminase but is a little smaller in size. Originally thought to be liver-specific, this protein has been found in other tissues as well. At least one transcribed pseudogene has been found for this gene. [provided by RefSeq].

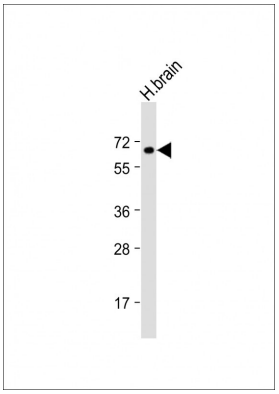
## References


Hu, W., et al. Proc. Natl. Acad. Sci. U.S.A. 107(16):7455-7460(2010)
Suzuki, S., et al. Proc. Natl. Acad. Sci. U.S.A. 107(16):7461-7466(2010)
Szeliga, M., et al. Glia 57(9):1014-1023(2009)
Tian, C., et al. J. Neurochem. 105(3):994-1005(2008)
Maeshima, H., et al. Prog. Neuropsychopharmacol. Biol. Psychiatry 31(7):1410-1418(2007)


## Images



Immunohistochemical analysis of paraffin-embedded human kidney tissue using AP6650D performed on the Leica® BOND RXm. Samples were incubated with primary antibody(1/500) for 1 hours at room temperature. A undiluted biotinylated CRF Anti-Polyvalent HRP Polymer antibody was used as the secondary antibody.




Anti-GLS2 Antibody (C-term E513) at 1:2000 dilution + Human brain lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 66 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

## Citations

- Liver-Type Glutaminase GLS2 Is a Druggable Metabolic Node in Luminal-Subtype Breast Cancer
- MYC oncogene overexpression drives renal cell carcinoma in a mouse model through glutamine metabolism.
- Loss of tyrosine catabolic enzyme HPD promotes glutamine anaplerosis through mTOR signaling in liver cancer
- Mitochondrial GCN5L1 regulates glutaminase acetylation and hepatocellular carcinoma

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.