

Rabbit Anti-GLS1 antibody

SL10341R

Product Name GLS1

Chinese Name 谷氨酰胺酶 1/Glutaminase 抗体

Alias mitochondrial; AAD20; GLS; GLS1; GLSK_HUMAN; Glutaminase kidney isoform; K-glutaminase; KIAA0838; L-glutamine amidohydrolase; DKFZp686O15119; FLJ10358.

Research Area Tumour Cell biology Neurobiology Signal transduction Mitochondrion

Immunogen Species Rabbit

Clonality Polyclonal

React Species Human,Mouse,Rat

Applications WB=1:500-2000,ELISA=1:5000-10000 (Paraffin sections need antigen repair)
not yet tested in other applications.
optimal dilutions/concentrations should be determined by the end user.

Theoretical molecular weight 72kDa

Cellular localization cytoplasmic Mitochondrion

Form Liquid

Concentration 1mg/ml

immunogen KLH conjugated synthetic peptide derived from human GLS1: 101-200/669

Lsotype IgG

Purification affinity purified by Protein A

Buffer Solution 1M TBS(pH7.4) with 1% BSA, 3% Proclin300 and 50% Glycerol.

Storage Shipped at 4°C. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.

Attention This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

PubMed [PubMed](#)

Product Detail This gene encodes the K-type mitochondrial glutaminase. The encoded protein is an phosphate-activated amidohydrolase that catalyzes the hydrolysis of glutamine to

glutamate and ammonia. This protein is primarily expressed in the brain and kidney plays an essential role in generating energy for metabolism, synthesizing the brain neurotransmitter glutamate and maintaining acid-base balance in the kidney. Alternate splicing results in multiple transcript variants. [provided by RefSeq, Jan 2012].

Function:

Catalyzes the first reaction in the primary pathway for the renal catabolism of glutamine. Plays a role in maintaining acid-base homeostasis. Regulates the levels of the neurotransmitter glutamate in the brain. Isoform 2 lacks catalytic activity.

Subunit:

Heterotetramer. Interacts with ATCAY; the interaction is direct and may control GLS localization, negatively regulating its activity.

Subcellular Location:

Isoform 1: Cytoplasm, cytosol. Isoform 3: Mitochondrion.

Tissue Specificity:

Isoform 1 and isoform 3 are detected in brain cortex. Isoform 3 is highly expressed in astrocytoma, ganglioglioma and ependymoma. Isoform 1 is highly expressed in brain and kidney, but not detected in liver. Isoform 3 is highly expressed in heart and pancreas, detected at lower levels in placenta, lung, pancreas and kidney, but is not detected in liver. Isoform 2 is expressed in cardiac and skeletal muscle.

Similarity:

Belongs to the glutaminase family.
Contains 2 ANK repeats.

SWISS:

O94925

Gene ID:

2744

Database links:

[Entrez Gene: 2744](#) Human

[Entrez Gene: 14660](#) Mouse

[Entrez Gene: 24398](#) Rat

[Omim: 138280](#) Human

[SwissProt: O94925](#) Human

[SwissProt: D3Z7P3](#) Mouse

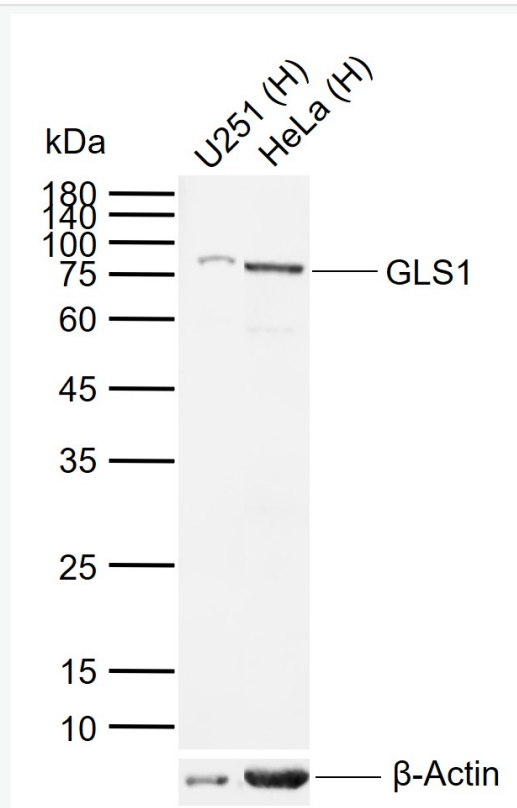
[SwissProt: P13264](#) Rat

[Unigene: 116448](#) Human

[Unigene: 30102](#) Mouse

[Unigene: 5762](#) Rat

**Product
Picture**



Sample:

Lane 1: Human U251 cell lysates

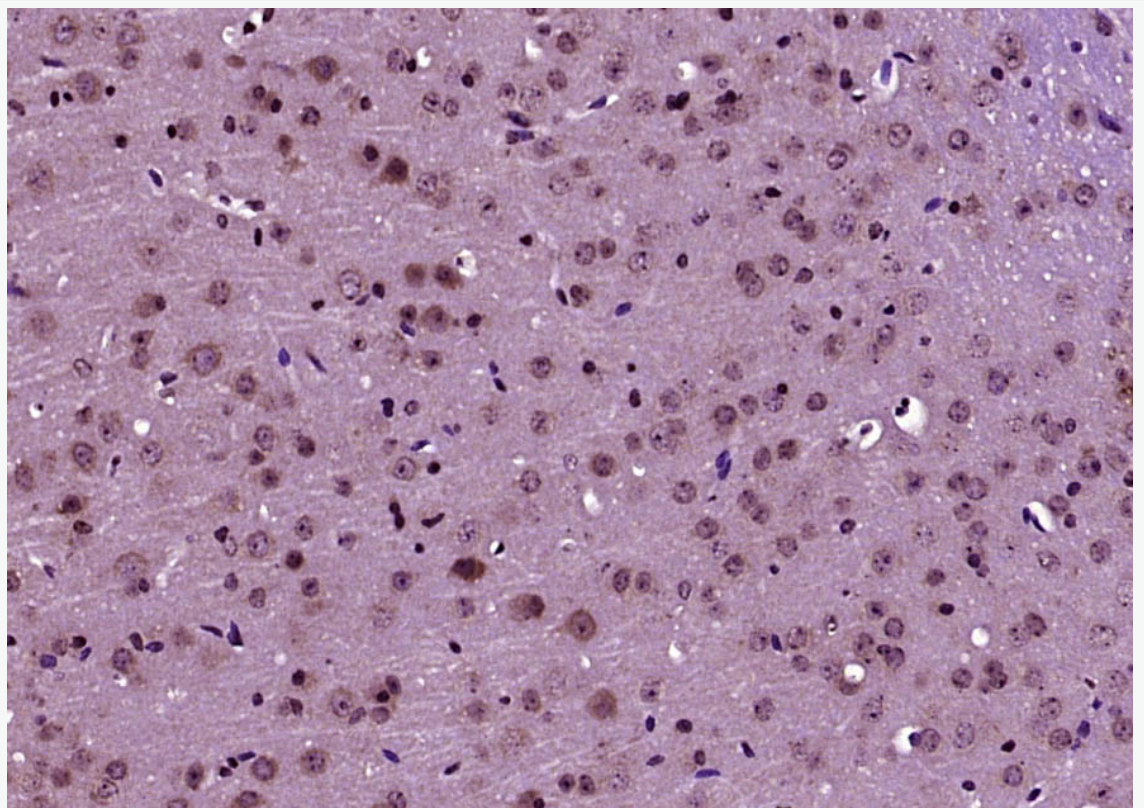
Lane 2: Human HeLa cell lysates

Primary: Anti-GLS1 (SL10341R) at 1/1000 dilution

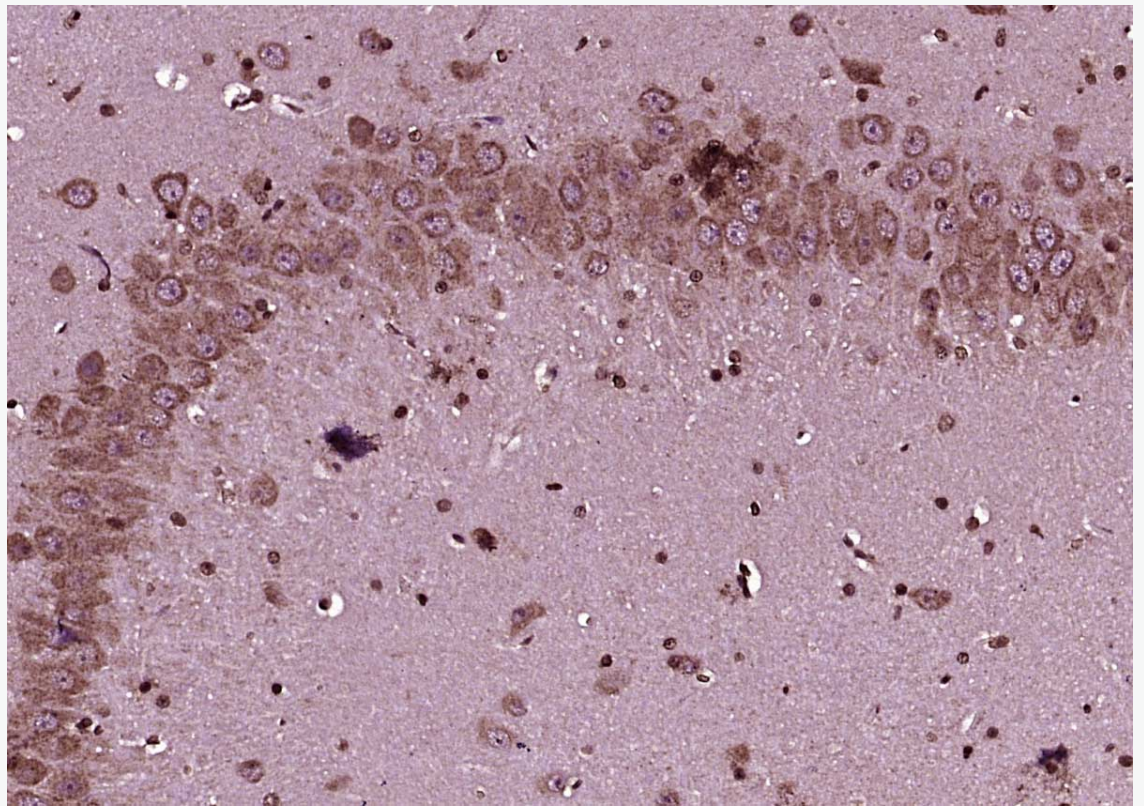
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 72 kDa

Observed band size: 75 kDa



Paraformaldehyde-fixed, paraffin embedded (Mouse brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (GLS1) Polyclonal Antibody, Unconjugated (SL10341R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.



Paraformaldehyde-fixed, paraffin embedded (Rat brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (GLS1) Polyclonal Antibody, Unconjugated (SL10341R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.