Glutamine Synthetase Recombinant Antibody [PSH10-48] - Rat IgG1 (Chimeric)

HA601428

Product Type:	Recombinant Chimeric Antibody, primary antibodies
Species reactivity:	Human, Mouse, Rat
Applications:	IHC-Fr, WB
Molecular Wt:	Predicted band size: 42 kDa
Clone number:	PSH10-48

Description: The protein encoded by this gene belongs to the glutamine synthetase family. It catalyzes the synthesis of glutamine from glutamate and ammonia in an ATP-dependent reaction. This protein plays a role in ammonia and glutamate detoxification, acid-base homeostasis, cell signaling, and cell proliferation. Glutamine is an abundant amino acid, and is important to the biosynthesis of several amino acids, pyrimidines, and purines. Mutations in this gene are associated with congenital glutamine deficiency, and overexpression of this gene was observed in some primary liver cancer samples. There are six pseudogenes of this gene found on chromosomes 2, 5, 9, 11, and 12. Alternative splicing results in multiple transcript variants.

Immunogen: Recombinant protein within Human Glutamine Synthetase aa 2-373.

Positive control: K-562 cell lysate, HepG2 cell lysate, Mouse brain tissue lysate, Mouse liver tissue lysate, Rat brain tissue lysate, Rat liver tissue lysate.

Subcellular location: Microsome, Cytosol, Mitochondrion, Cell membrane.

Database links: SwissProt: P15104 Human | P15105 Mouse | P09606 Rat

Recommended Dilutions:

IHC-Fr	1:500
WB	1:5,000

Storage Buffer: 1*PBS (pH7.4), 0.1% BSA, 40% Glycerol, 0.2% Proclean 950.

Storage Instruction: Shipped at 4℃. Store at +4℃ short term (1-2 weeks). Store at -20℃ long term.

Purity: Protein A affinity purified.

Images

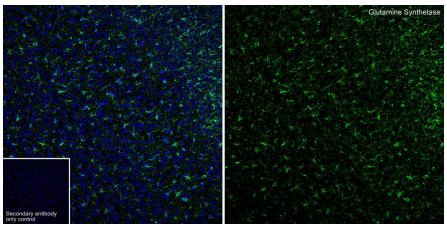

Fig1: Application: IHC-Fr

Species: Mouse

Site: Cerebral cortex

Sample: Frozen section

Antibody concentration: 1:500

Antigen retrieval: Not required

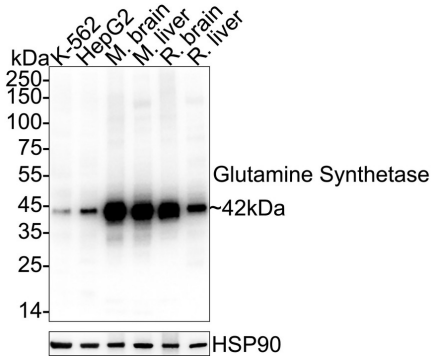

Fig2: Western blot analysis of Glutamine Synthetase on different lysates with Rat anti-Glutamine Synthetase antibody (HA601428) at 1/5,000 dilution.

Lane 1: K-562 cell lysate
Lane 2: HepG2 cell lysate
Lane 3: Mouse brain tissue lysate
Lane 4: Mouse liver tissue lysate
Lane 5: Rat brain tissue lysate
Lane 6: Rat liver tissue lysate

Lysates/proteins at 20 µg/Lane.

Predicted band size: 42 kDa
Observed band size: 42 kDa

Exposure time: 2 seconds; ECL: K1801;
4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (HA601428) at 1/5,000 dilution was used in primary antibody dilution (K1803) at 4℃ overnight. Goat Anti-Rat IgG H&L - HRP Secondary Antibody (HA1023) at 1/5,000 dilution was used for 1 hour at room temperature.

Note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

Background References

1. Muthu M. et. al. GLUL Ablation Can Confer Drug Resistance to Cancer Cells via a Malate-Aspartate Shuttle-Mediated Mechanism. Cancers (Basel). 2019 Dec
2. Wang Y. et. al. GLUL Promotes Cell Proliferation in Breast Cancer. J Cell Biochem. 2017 Aug

Applications:WB=Western blot IHC-P=Immunohistochemistry (paraffin) IF-Cell=Immunofluorescence (Cell) IF-Tissue=Immunofluorescence (Tissue) FC=Flow cytometry IP=Immunoprecipitation