bs-4143R

[Primary Antibody]

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Glutamine synthetase Rabbit pAb

DATASHEET -

Host: Rabbit Isotype: IgG

Clonality: Polyclonal

GenelD: 2752 SWISS: P15104

Target: Glutamine synthetase

Immunogen: KLH conjugated synthetic peptide derived from human Glutamine

synthetase: 285-373/373.

Purification: affinity purified by Protein A

Concentration: 1mg/ml

Storage: 0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50%

Glycerol.

Shipped at 4°C. Store at -20°C for one year. Avoid repeated

freeze/thaw cycles.

Background: Glutamine Synthetase catalyzes the conversion of ammonia and glutamate to glutamine. It is found in astrocytes as an octamer of identical 42 kDa subunits. The function of Glutamine Synthetase is the detoxification of brain ammonia. It also has an important role in the metabolic regulation of neurotransmitter glutamate. Because of the multiple functions and importance of Glutamine Synthetase in cellular metabolism, both catalytic activities and synthesis are highly regulated. The activity of Glutamine Synthetase is controlled by adenylylation. Its activity is decreased in the cerebral cortex of brains affected by Alzheimer's disease, particularly in the vicinity of senile plaques. It is also decreased under conditions of glucose deprivation. The level of expression of Glutamine Synthetase is increased during ischemia in vivo or hypoxia in culture.

Applications: WB (1:500-2000)

IHC-P (1:100-500) **IHC-F** (1:100-500) **IF** (1:100-500) **ELISA** (1:5000-10000)

Reactivity: Mouse, Rat

(predicted: Human, Pig,

Sheep, Cow)

Predicted 42 kDa

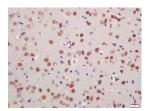
MW.:

Subcellular Location: Cytoplasm

VALIDATION IMAGES



Sample: Raji Cell (Human) Lysate at 40 ug Primary: Anti- Glutamine synthetase (bs-4143R) at 1/300 dilution Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution Predicted band size: 42 kD Observed band size: 42 kD



Tissue/cell: mouse brain tissue; 4% Paraformaldehyde-fixed and paraffinembedded; Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum.C-0005) at 37°C for 20 min; Incubation: Anti-Glutamine synthetase Polyclonal Antibody, Unconjugated(bs-4143R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining

— SELECTED CITATIONS —

- [IF=18.027] Shikai Liu. et al. On-Demand Generation of Peroxynitrite from an Integrated Two-Dimensional System for Enhanced Tumor Therapy, ACS NANO. 2022;XXXX(XXX):XXX-XXX WB; Human. 35666853
- [IF=5.6] Yuyao Zhang, et al. Enhanced Electrochemiluminescence from Ruthenium-Tagged Immune Complex at Flexible

Chains for Sensitive Analysis of Glutamate Decarboxylase Antibody. BIOSENSORS-BASEL. 2025 Jan;15(1):47; Human. 39852098 • [IF=3.77] Zhan Xie. et al. A novel model of subretinal edema induced by DL-alpha aminoadipic acid. EXP EYE RES. 2023 Jan;:109388 WB ;Rabbit,Mouse,Rat. 36652968