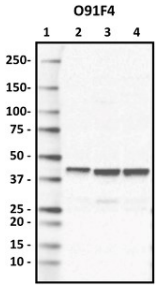
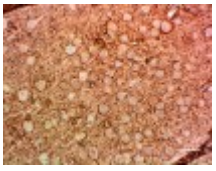
Product Data Sheet:
Gluthamine Synthetase (GS)

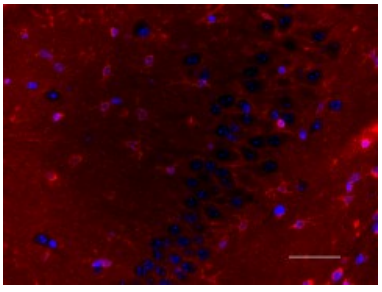
Cat. No:	MAB-94604
Size:	100 ug
Clone:	P91E4
Concentration:	1mg/ml
Host:	Ms
Isotype:	IgG2a, κ
Immunogen:	Recombinant human GLUL protein expressed in HEK293T cell
Reactivity:	Hu,Ms, Rt
Applications:	Western Blot: 1.0 – 10 µg per mL. Immunohistochemistry (paraffin-embedded tissues): 0.5 – 10 µg/mL Immunocytochemistry: 2.0 – 10 µg/mL
Molecular Weight:	42kDa
Purification:	Aff. Pur.
Synonyms:	GLUL, Glutamine Synthetase
Background:	Glutamine Synthase (GLUL) is primarily expressed in astrocytes in the brain. The main function of GLUL is to catalyze the condensation of glutamate and ammonia to form glutamine. GLUL plays an important role in the metabolic regulation of glutamate, detoxification of brain ammonia, as well as recycling of neurotransmitters. GLUL expression in endothelial cells may be involved in cell migration during pathological angiogenesis. Upregulation of astrocytic GLUL to uptake excess ammonia and glutamate may play a neuroprotective role during neuroinflammation.
Form:	Liquid
Buffer:	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.
Storage:	The antibody solution should be stored undiluted between 2°C and 8°C.



Western blot of purified anti-Glutamine synthetase antibody (clone P91E4). Lane 1: Molecular weight marker;
Lane 2: 10 µg of human brain lysate;
Lane 3: 10 µg of mouse brain lysate;
Lane 4: 10 µg of rat brain lysate. The blot was incubated with 1 µg/mL of the primary antibody overnight at 4°C, followed by incubation with HRP-labeled goat anti-mouse IgG. Enhanced chemiluminescence was used as the

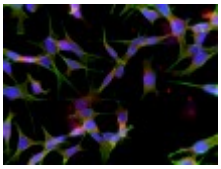


IHC staining of purified anti-Glutamine synthetase antibody (clone P91E4) on formalin-fixed paraffin-embedded mouse brain tissue. Following antigen retrieval using Sodium Citrate H.I.E.R, the tissue was incubated with 0.5 µg/ml of the primary antibody overnight at 4°C. Ultra Streptavidin HRP Detection Kit was used for detection followed by hematoxylin counterstaining, according to the protocol provided. The image was captured with a 40X objective. Scale Bar: 50 µm



IHC staining of purified anti-Glutamine synthetase antibody (clone P91E4) on formalin-fixed paraffin-embedded mouse brain tissue. Following antigen retrieval using Sodium Citrate H.I.E.R. the tissue was incubated with 0.5 µg/mL of the primary antibody overnight at 4°C, followed by incubation with 2.5 µg/mL of Alexa Fluor® 594 goat anti-mouse IgG for one hour at room temperature. The slide was mounted with fluoromount G

detection system.



ICC staining of purified anti-Glutamine synthetase antibody (clone P91E4) on SH-SY5Y cell. The cells were fixed with 4% PFA, permeabilized with a buffer containing 0.1% Triton X-100 and 0.25% BSA, and blocked with 2% normal goat serum and 0.02% BSA. The cells were then incubated with 2 µg/mL of the primary antibody overnight at 4°C, followed by incubation with 2.5 µg/mL of Alexa Fluor® 594 goat anti-mouse IgGfor one hour at room temperature. The cells were co-stained with Flash Phalloidin Green 488. The slide was mounted with fluoromount G with DAPI. The image was captured with a 60X objective. Scale bar: 20 µm

with DAPI. The image was captured with a 40X objective.
Scale bar: 50 µm

References

Antigen References
1. Eelen G, et al. 2018. Nature. (7721):63-69
2. Spodenkiewicz M, et al. 2016. Biology (Basel). 5(4)
3. Fan S, et al. 2018. J Cell Biochem. 119(7):6008