

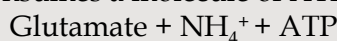
**Catalog No. LF-PA0100**

**POLYCLONAL ANTIBODY**



## Anti-Glutamine Synthetase

**Background :** Glutamine Synthetase(GS) catalyzes the conversion of ammonia and glutamate to glutamine. This reaction consumes a molecule of ATP:



GS is found in astrocytes as an octamer of identical 45kDa subunits. Most well known function of GS is the detoxification of brain ammonia. It also has an important role in controlling metabolic regulations of neurotransmitter glutamate. Because of the multiple functions and importance of GS in cellular metabolism, both catalytic activities and synthesis are highly regulated. The activity of GS is controlled by adenylation. 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. On the other hand, the level of expression of GS is increased during ischemia in vivo or hypoxia in culture.

**Immunogen :** Recombinant human protein purified from *E.coli*

**Host :** Rabbit

**Size :** 100  $\mu\text{l}$

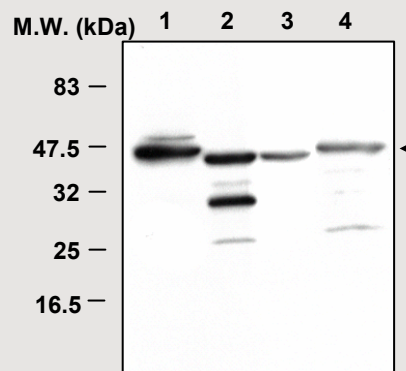
**Composition:** PBS containing 50% glycerol

**Positive control :** Mouse brain extracts

**Storage :** store for 1 year at  $-20^\circ\text{C}$  from date of shipment

### Species cross reactivity

Human	Mouse	Rat
+	+	+



### IMMUNOBLOT ANALYSIS of Cell lysates:

Lane 1 : 293T cell lysates transfected with Myc-Glutamine synthetase  
Lane 2 : Mouse brain  
Lane 3 : Mouse liver  
Lane 4 : Rat brain

### Applications :

Western Blotting (1:2000)

Immunoprecipitation was not tested

### Background Reference:

- 1) Suárez, I. et al. (2002) *Neurochemistry International*, 41: 123-142
- 2) Kosenko, E. et al (2003) *Neurochemistry International*, 43: 493-499