

Product datasheet

# Anti-Glutamine Synthetase antibody ab49873

★★★★★ 11 Abreviews 21 References 3 Images

Overview

<b>Product name</b>	Anti-Glutamine Synthetase antibody
<b>Description</b>	Rabbit polyclonal to Glutamine Synthetase
<b>Host species</b>	Rabbit
<b>Tested applications</b>	<b>Suitable for:</b> WB, IHC-P, ICC/IF, IHC-Fr
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse, Rat, Monkey <b>Predicted to work with:</b> Chicken, Hamster, Cow, Dog, Human, Pig, Cynomolgus monkey 
<b>Immunogen</b>	Synthetic peptide: RTCLLNETGDEPFQYKN , corresponding to C terminal amino acids 357-373 of Mouse Glutamine Synthetase <a href="#">Run BLAST with</a> <a href="#">Run BLAST with</a>
<b>Positive control</b>	Rat brain tissue, rat brain cytosolic fraction extract, cerebellum, kidney

Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.
<b>Storage buffer</b>	pH: 7.40 Preservative: 0.097% Sodium azide Constituent: 0.0268% PBS
<b>Purity</b>	Ion Exchange Chromatography
<b>Purification notes</b>	Whole antiserum is fractionated and then further purified by ion-exchange chromatography to provide the IgG fraction of antiserum that is essentially free of other rabbit serum proteins.
<b>Clonality</b>	Polyclonal
<b>Isotype</b>	IgG

Applications

Our [Abpromise guarantee](#) covers the use of **ab49873** in the following tested applications.

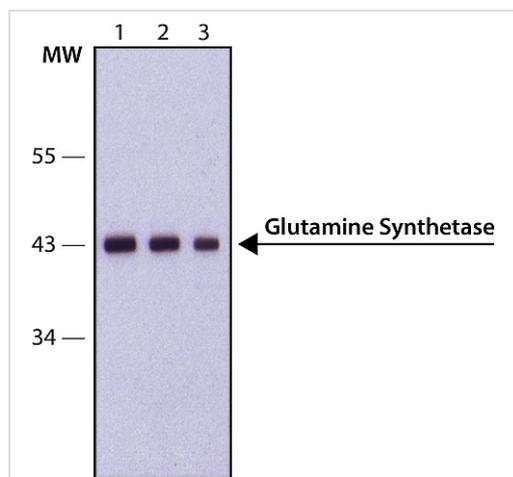
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		1/10000. Predicted molecular weight: 42 kDa.
IHC-P	★★★★★	1/10000 - 1/20000.
ICC/IF	★★★★★	Use at an assay dependent concentration.
IHC-Fr	★★★★★	1/5000.

## Target

<b>Function</b>	This enzyme has 2 functions: it catalyzes the production of glutamine and 4-aminobutanoate (gamma-aminobutyric acid, GABA), the latter in a pyridoxal phosphate-independent manner (By similarity). Essential for proliferation of fetal skin fibroblasts.
<b>Involvement in disease</b>	Defects in GLUL are the cause of congenital systemic glutamine deficiency (CSGD) [MIM:610015]. CSGD is a rare developmental disorder with severe brain malformation resulting in multi-organ failure and neonatal death. Glutamine is largely absent from affected patients serum, urine and cerebrospinal fluid.
<b>Sequence similarities</b>	Belongs to the glutamine synthetase family.
<b>Developmental stage</b>	Expressed during early fetal stages.
<b>Cellular localization</b>	Cytoplasm. Mitochondrion.

## Images



Western blot - Anti-Glutamine Synthetase antibody (ab49873)

**All lanes :**

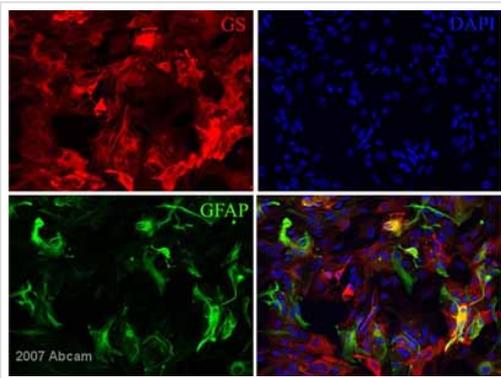
**Lane 2 :** 10000

**Lane 3 :** 20000

**Secondary**

**All lanes :** Goat Anti-Rabbit IgG-Peroxidase

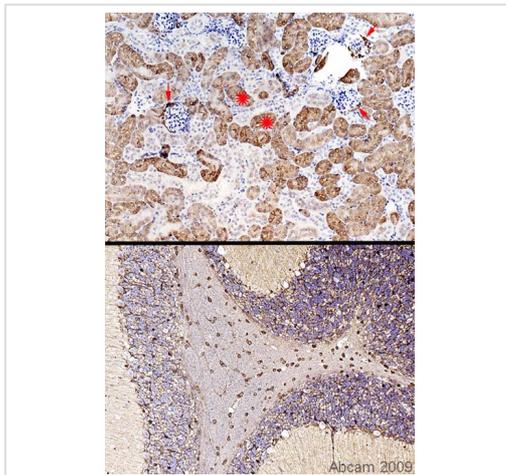
**Predicted band size:** 42 kDa



Immunocytochemistry/ Immunofluorescence - Anti-Glutamine Synthetase antibody (ab49873)

This image is courtesy of an Abreview submitted by Dr Zsuzsanna Kornyei

ab49873 at 1/5000 staining cultured mouse astroglial cells by ICC/IF. The cells were paraformaldehyde fixed and permeabilized with TritonX100 before being blocked and stained with the antibody for 24 hours at 4°C. An Alexa-Fluor® 594 conjugated chicken anti-rabbit antibody was used as the secondary.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Glutamine Synthetase antibody (ab49873)

This image is courtesy of an Abreview submitted by Mr Carl Hobbs

Glutamine Synthetase antibody (ab49873) immunohistochemistry on rat brain and kidney tissue (formalin/PFA-fixed paraffin-embedded) sections. Rat cerebellum and rat kidney sections were incubated with ab49873 (1/21000) for 2h at RT. Antigen retrieval was performed by heat induction in citrate buffer pH6. The upper panel shows immunoreactivity in rat kidney, apart from convoluted tubule positivity (proximal: see asterisks) there is positivity within the glomerular capsule (perhaps the parietal epithelium: see arrows). In the lower image (cerebellum), apart from astrocytic glial cell body and process positivity, I note that what I think are oligodendrocytes in the grey matter, are also positive. In the corpus callosum of the same section (and all other major axonal tracks of this brain), linearly arranged cells are also positive: these are known to be oligodendrocytes.

**Please note:** All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE"

### Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you

- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit <https://www.abcam.com/abpromise> or contact our technical team.

### **Terms and conditions**

---

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors