


# Anti-Glutamine Synthetase antibody ab73593

★★★★★ **20 Abreviews**   **76 References**   画像数 6

### 製品の概要

製品名	Anti-Glutamine Synthetase antibody
製品の詳細	Rabbit polyclonal to Glutamine Synthetase
由来種	Rabbit
特異性	Replenishment batches of our polyclonal antibody, ab73593 are tested in IHC-P. Previous batches were additionally validated in ICC/IF and WB. These applications are still expected to work and are covered by our Abpromise guarantee. You may also be interested in our alternative recombinant antibody, <a href="#">ab176562</a> .
アプリケーション	<b>適用あり:</b> IHC-P, ICC/IF, WB
種交差性	<b>交差種:</b> Mouse, Rat, Human, Common marmoset <b>交差が予測される動物種:</b> Hamster, Cow, Dog, Zebrafish 
免疫原	Synthetic peptide corresponding to Mouse Glutamine Synthetase aa 1-100 conjugated to keyhole limpet haemocyanin. Database link: <a href="#">P15105</a> (Peptide available as <a href="#">ab73592</a> )
ポジティブ・コントロール	IHC-P: FFPE Rat cerebellum and liver tissue sections. ICC/IF: MEF1 cells. WB: Mouse kidney, liver and brain tissue lysate, Rat lung and liver tissue lysate and Human brain tissue lysate, Recombinant Human Glutamine Synthetase protein.
特記事項	<p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&amp;As</p>

### 製品の特性

製品の状態	Liquid
保存方法	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.
バッファー	pH: 7.40

Preservative: 0.02% Sodium azide  
Constituent: PBS

Batches of this product that have a concentration < 1mg/ml may have BSA added as a stabilising agent. If you would like information about the formulation of a specific lot, please contact our scientific support team who will be happy to help.

精製度 Immunogen affinity purified  
ポリモノ ポリクローナル  
アイソタイプ IgG

## アプリケーション

**The Abpromise guarantee** **Abpromise保証は、次のテスト済みアプリケーションにおけるab73593の使用に適用されます**  
アプリケーションノートには、推奨の開始希釈率がありますが、適切な希釈率につきましてはご検討ください。

アプリケーション	Abreviews	特記事項
IHC-P	★★★★★ (8)	1/1000.
ICC/IF		Use a concentration of 1 µg/ml.
WB	★★★★★ (5)	Use a concentration of 1 µg/ml. Detects a band of approximately 42 kDa (predicted molecular weight: 42 kDa). Can be blocked with <b>Mouse Glutamine Synthetase peptide (ab73592)</b> .

## ターゲット情報

**機能** 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.

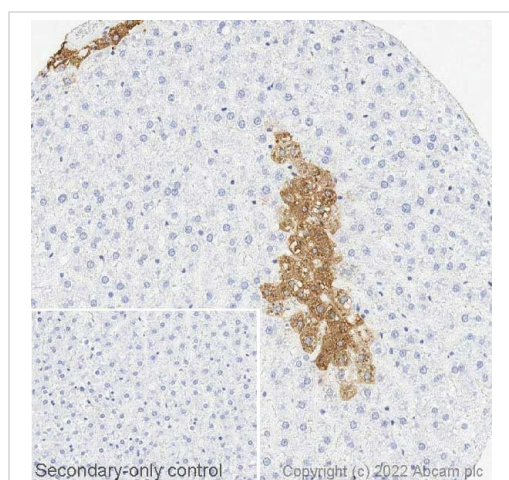
**関連疾患** Defects in GLUL are the cause of congenital systemic glutamine deficiency (CSGD) [MIM:610015]. CSGD is a rare developmental disorder with severe brain malformation resulting in multi-organ failure and neonatal death. Glutamine is largely absent from affected patients serum, urine and cerebrospinal fluid.

**配列類似性** Belongs to the glutamine synthetase family.

**発生段階** Expressed during early fetal stages.

**細胞内局在** Cytoplasm. Mitochondrion.

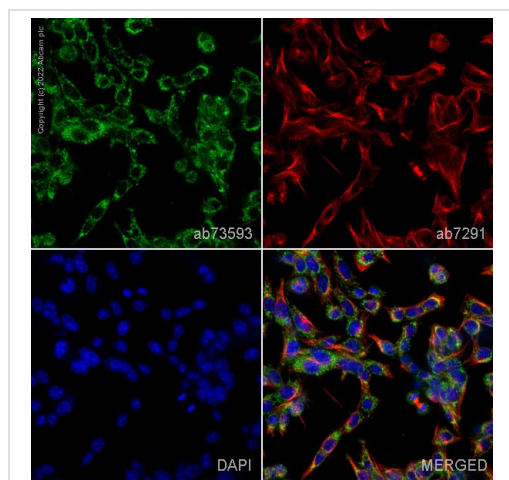
## 画像



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Glutamine Synthetase antibody (ab73593)

IHC image of Glutamine Synthetase staining in a section of formalin-fixed paraffin-embedded normal rat liver performed on a Leica Biosystems BOND<sup>®</sup> RX instrument. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6, epitope retrieval solution 1) for 20mins. The section was then incubated with ab73593, 1 ug/ml, for 15 mins at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX. The inset secondary-only control image is taken from an identical assay without primary antibody.

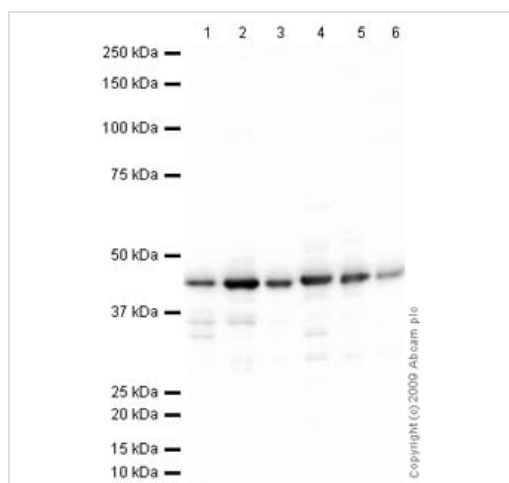
For other IHC staining systems (automated and non-automated) customers should optimize variable parameters such as antigen retrieval conditions, primary antibody concentration and antibody incubation times.



Immunocytochemistry/ Immunofluorescence - Anti-Glutamine Synthetase antibody (ab73593)

ab73593 staining Glutamine Synthetase in MEF1 cells. The cells were fixed with 100% methanol (5 min), permeabilized with 0.1% PBS-Triton X-100 for 5 minutes and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1%PBS-Tween for 1h. The cells were then incubated overnight at 4°C with ab73593 at 1µg/ml and **ab7291**, Mouse monoclonal [DM1A] to alpha Tubulin - Loading Control. Cells were then incubated with **ab150081**, Goat polyclonal Secondary Antibody to Rabbit IgG - H&L (Alexa Fluor<sup>®</sup> 488), pre-adsorbed at 1/1000 dilution (shown in green) and **ab150120**, Goat polyclonal Secondary Antibody to Mouse IgG - H&L (Alexa Fluor<sup>®</sup> 594), pre-adsorbed at 1/1000 dilution (shown in pseudocolour red). Nuclear DNA was labelled with DAPI (shown in blue).

Image was acquired with a high-content analyser (Operetta CLS, Perkin Elmer) and a maximum intensity projection of confocal sections is shown.



Western blot - Anti-Glutamine Synthetase antibody  
(ab73593)

**All lanes :** Anti-Glutamine Synthetase antibody (ab73593) at 1  $\mu\text{g/ml}$

**Lane 1 :** Kidney (Mouse) Tissue Lysate

**Lane 2 :** Liver (Mouse) Tissue Lysate

**Lane 3 :** Liver (Rat) Tissue Lysate

**Lane 4 :** Human brain tissue lysate - total protein ([ab29466](#))

**Lane 5 :** Brain (Mouse) Tissue Lysate

**Lane 6 :** Lung (Rat) Tissue Lysate

Lysates/proteins at 10  $\mu\text{g}$  per lane.

### Secondary

**All lanes :** Goat polyclonal to Rabbit IgG - H&L - Pre-Adsorbed (HRP) at 1/3000 dilution

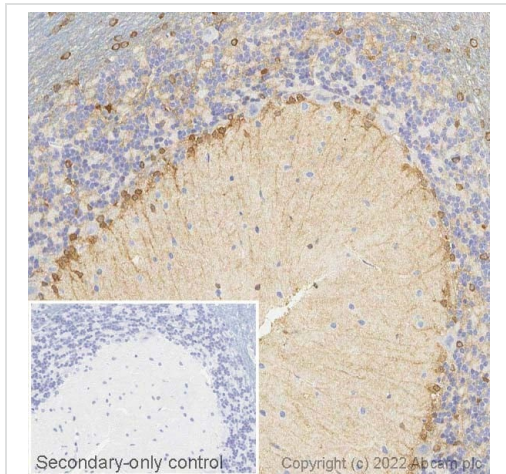
Developed using the ECL technique.

Performed under reducing conditions.

**Predicted band size:** 42 kDa

**Observed band size:** 42 kDa

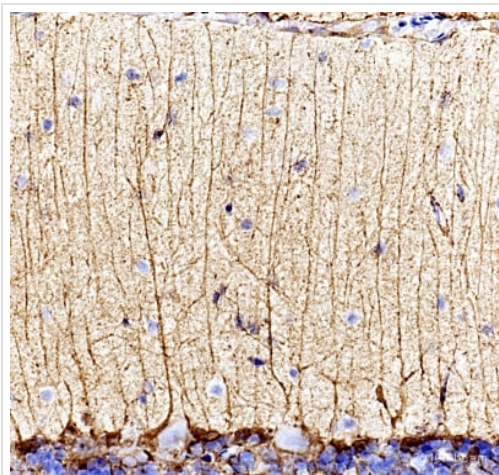
**Exposure time:** 30 seconds



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Glutamine Synthetase antibody (ab73593)

IHC image of Glutamine Synthetase staining in a section of formalin-fixed paraffin-embedded normal rat cerebellum performed on a Leica Biosystems BOND® RX instrument. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6, epitope retrieval solution 1) for 20mins. The section was then incubated with ab73593, 1 ug/ml, for 15 mins at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX. The inset secondary-only control image is taken from an identical assay without primary antibody.

For other IHC staining systems (automated and non-automated) customers should optimize variable parameters such as antigen retrieval conditions, primary antibody concentration and antibody incubation times.

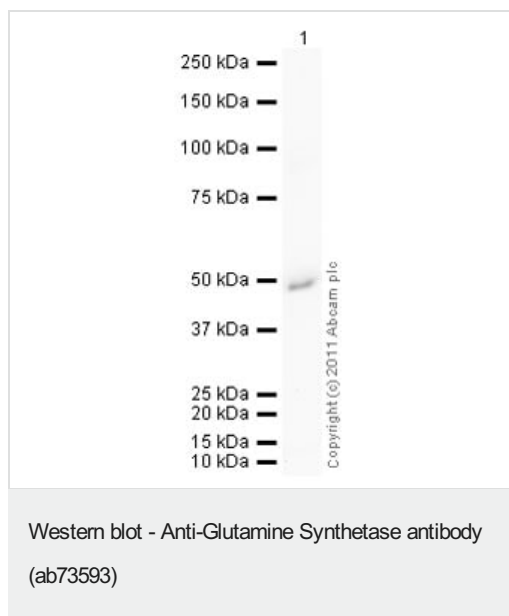


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Glutamine Synthetase antibody (ab73593)

This image is courtesy of Carl Hobbs, King's College London, United Kingdom

Immunohistochemical detection of Glutamine

Synthetase on Formaldehyde-fixed paraffin-embedded rat brain sections using Glutamine Synthetase antibody (ab73593). Antigen retrieval step: Heat mediated - Buffer/Enzyme Used: Citric acid pH6 Permeabilization. Blocking: 1% BSA for 10 mins at room temperature. Primary Antibody Dilution 1/1000. Incubation time: 2 hours in TBS/BSA/azide. Secondary Antibody: anti Rabbit IgG Conjugated to biotin (1/200). In the submitted image of rat cerebellum, two very good examples are observed of the bulbous endfeet of the primary Bergmann glia primary processes connecting with the inner Pial membrane.



Anti-Glutamine Synthetase antibody (ab73593) at 1 µg/ml +  
Recombinant Human Glutamine Synthetase protein (**ab98145**) at  
0.01 µg

### Secondary

Goat polyclonal to Rabbit IgG - H&L - Pre-Adsorbed (HRP)  
(**ab65484**) at 1/5000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

**Predicted band size:** 42 kDa

**Exposure time:** 2 minutes

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

### 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.co.jp/abpromise> or contact our technical team.

### Terms and conditions

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