# abcam

# Product datasheet

# Anti-Glutamine Synthetase antibody [3B6] - BSA and Azide free ab64613

★★★★★ 8 Abreviews 48 References 画像数 10

#### 製品の概要

免疫原

製品名 Anti-Glutamine Synthetase antibody [3B6] - BSA and Azide free

製品の詳細 Mouse monoclonal [3B6] to Glutamine Synthetase - BSA and Azide free

由来種 Mouse

アプリケーション 適用あり: WB, ICC/IF, Flow Cyt, Sandwich ELISA, IHC-P

種交差性 交差種: Mouse, Rat, Human, Drosophila melanogaster, Zebrafish

交差が予測される動物種: Horse, Chicken, Cow, Dog, Pig, Xenopus laevis, Chimpanzee,

Cynomolgus monkey, Opossum, Chinese hamster 🔷

Recombinant fragment corresponding to Human Glutamine Synthetase aa 274-373.

Sequence:

IEKLSKRHQYHIRAYDPKGGLDNARRLTGFHETSNINDFSAG

VANRSASI

RIPRTVGQEKKGYFEDRRPSANCDPFSVTEALIRTCLLNETG

**DEPFQYKN** 

Database link: P15104

Run BLAST with
Run BLAST with

ポジティブ・コントロール IHC-P: Human tonsil tissue. WB: Jurkat whole cell lysate; Raw 264.7 cells, HepG2 cell, PC-12,

Zebrafish brain, liver, skeletal muscle homogenate ICC: PC12 cells. Flow Cyt: Jurkat cells.

特記事項 This product was changed from ascites to tissue culture supernatant on 22/03/2019. Please note

that the dilutions may need to be adjusted accordingly. If you have any questions, please do not

hesitate to contact our scientific support team.

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.

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&As

製品の特性

1

製品の状態 Liquid

保存方法 Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw

cycles

**バッファー** pH: 7.4

Constituent: PBS

キャリア・フリー はい

精製度 Protein A purified

**ポリ/モノ** モノクローナル

**クローン名** 3B6 **アイソタイプ** lgG1

#### アプリケーション

**The Abpromise guarantee** <u>Abpromise保証は、</u>次のテスト済みアプリケーションにおけるab64613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
WB	<b>★★★★ (2)</b>	Use at an assay dependent concentration. Detects a band of approximately 37 kDa (predicted molecular weight: 42 kDa).
ICC/IF		Use at an assay dependent concentration.
Flow Cyt		Use at an assay dependent concentration.  ab170190 - Mouse monoclonal lgG1, is suitable for use as an isotype control with this antibody.
Sandwich ELISA		Use at an assay dependent concentration.
IHC-P		Use at an assay dependent concentration. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

# 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

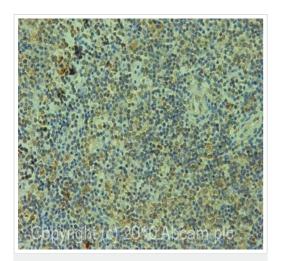
multi-organ failure and neonatal death. Glutamine is largely absent from affected patients serum,

urine and cerebrospinal fluid.

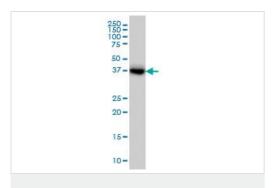
**配列類似性** Belongs to the glutamine synthetase family.

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

**細胞内局在** Cytoplasm. Mitochondrion.



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-Glutamine Synthetase antibody [3B6] - BSA and Azide free (ab64613)



Western blot - Anti-Glutamine Synthetase antibody [3B6] - BSA and Azide free (ab64613)

IHC image of ab64613 staining in human tonsil formalin fixed paraffin embedded tissue section, performed on a Leica Bond<sup>TM</sup> system using the standard protocol F. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH6, epitope retrieval solution 1) for 20 mins. The section was then incubated with ab64613, 1µg/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.

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.

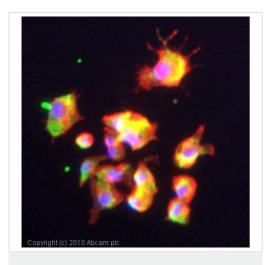
This image was generated using the ascites version of the product.

Anti-Glutamine Synthetase antibody [3B6] - BSA and Azide free (ab64613) at 1  $\mu$ g/ml + Jurkat cell lysate at 50  $\mu$ g

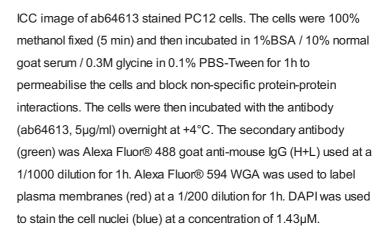
## **Secondary**

Goat Anti-Mouse IgG (H&L)-HRP at 1/2500 dilution

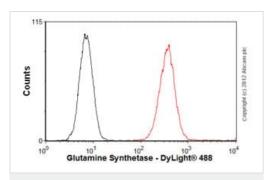
**Predicted band size:** 42 kDa **Observed band size:** 37 kDa



Immunocytochemistry/ Immunofluorescence - Anti-Glutamine Synthetase antibody [3B6] - BSA and Azide free (ab64613)



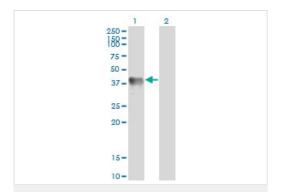
This image was generated using the ascites version of the product.



Flow Cytometry - Anti-Glutamine Synthetase antibody [3B6] - BSA and Azide free (ab64613)

Overlay histogram showing Jurkat cells stained with ab64613 (red line). The cells were fixed with 80% methanol (5 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (ab64613,  $1\mu g/1x10^6$  cells) for 30 min at 22°C. The secondary antibody used was DyLight® 488 goat anti-mouse lgG (H+L) (ab96879) at 1/500 dilution for 30 min at 22°C. Isotype control antibody (black line) was mouse lgG1 [ICIGG1] (ab91353,  $2\mu g/1x10^6$  cells) used under the same conditions. Acquisition of >5,000 events was performed. This antibody gave a positive signal in Jurkat cells fixed with 4% paraformaldehyde (10 min)/permeabilized with 0.1% PBS-Tween for 20 min used under the same conditions.

This image was generated using the ascites version of the product.



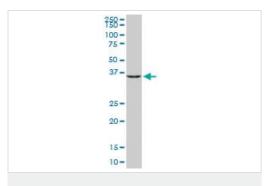
Western blot - Anti-Glutamine Synthetase antibody [3B6] - BSA and Azide free (ab64613)

**All lanes :** Anti-Glutamine Synthetase antibody [3B6] - BSA and Azide free (ab64613)

Lane 1: Glutamine Synthetase transfected lysate

Lane 2: Non-transfected lysate

Predicted band size: 42 kDa

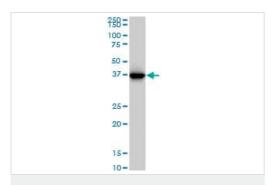


Western blot - Anti-Glutamine Synthetase antibody [3B6] - BSA and Azide free (ab64613)

Anti-Glutamine Synthetase antibody [3B6] - BSA and Azide free (ab64613) + Raw 264.7 cell line

Predicted band size: 42 kDa

This image was generated using the ascites version of the product.

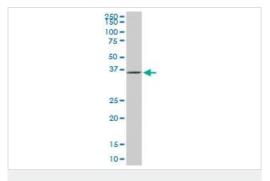


Western blot - Anti-Glutamine Synthetase antibody [3B6] - BSA and Azide free (ab64613)

Anti-Glutamine Synthetase antibody [3B6] - BSA and Azide free (ab64613) + HepG2 cell lysate

Predicted band size: 42 kDa

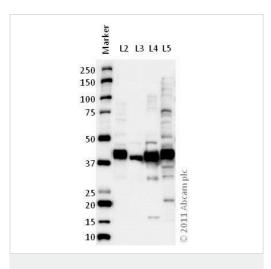
This image was generated using the ascites version of the product.



Western blot - Anti-Glutamine Synthetase antibody [3B6] - BSA and Azide free (ab64613)

Anti-Glutamine Synthetase antibody [3B6] - BSA and Azide free (ab64613) + PC-12 cell lysate

Predicted band size: 42 kDa



Western blot - Anti-Glutamine Synthetase antibody [3B6] - BSA and Azide free (ab64613)

**All lanes :** Anti-Glutamine Synthetase antibody [3B6] - BSA and Azide free (ab64613) at  $0.5~\mu g/ml$ 

Lane 1: Marker

Lane 2: Zebrafish brain homogenate at 20 µg

Lane 3: Zebrafish liver homogenate at 20 µg

Lane 4: Zebrafish skeletal muscle homogenate at 20 µg

Lane 5: JURKAT (Human T cell lymphoblast-like cell line) whole

cell lysate at 20 µg

# Secondary

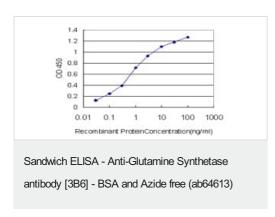
**All lanes :** Goat polyclonal to Mouse  $\lg G - H\&L - Pre$ -Adsorbed (HRP) at 1/6000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

**Predicted band size:** 42 kDa **Observed band size:** 42 kDa

Exposure time: 4 minutes



Detection limit for recombinant GST tagged Glutamine Synthetase is approximately 0.03ng/ml as a capture antibody.

This image was generated using the ascites version of the product.

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 <a href="https://www.abcam.co.jp/abpromise">https://www.abcam.co.jp/abpromise</a> or contact our technical team.

### Terms and conditions

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