

Product datasheet

# Anti-Glutamine Synthetase antibody ab16802

32 References 4 Images

Overview

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<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> ICC/IF, WB, In-Cell ELISA
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse, Rat, Human <b>Predicted to work with:</b> Cow, Dog, Chimpanzee, Ferret, Zebrafish 
<b>Immunogen</b>	Recombinant full length protein purified from E.coli (Human).
<b>General notes</b>	<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>

Properties

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<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
<b>Storage buffer</b>	Preservative: 0.03% Sodium azide Constituents: HEPES, 50% Glycerol (glycerin, glycerine), 0.87% Sodium chloride, 0.01% BSA
<b>Purity</b>	Protein A purified
<b>Clonality</b>	Polyclonal
<b>Isotype</b>	IgG

Applications

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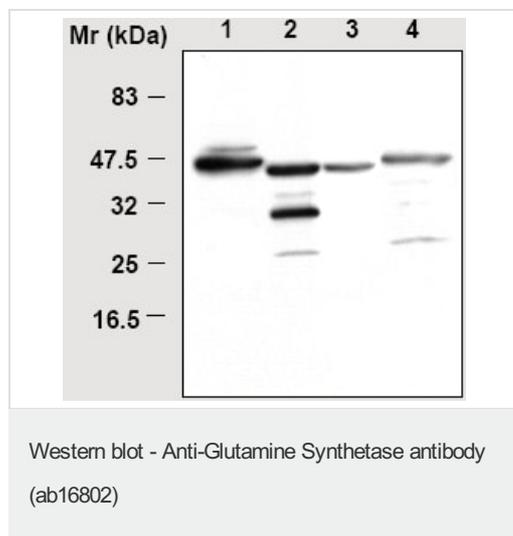
**The Abpromise guarantee** Our [Abpromise guarantee](#) covers the use of ab16802 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
ICC/IF		Use a concentration of 1 µg/ml.
WB		1/2000. Predicted molecular weight: 42 kDa.
In-Cell ELISA		Use at an assay dependent concentration.

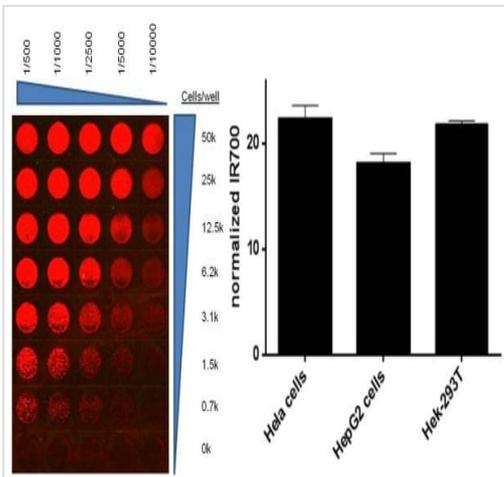
## Target

<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

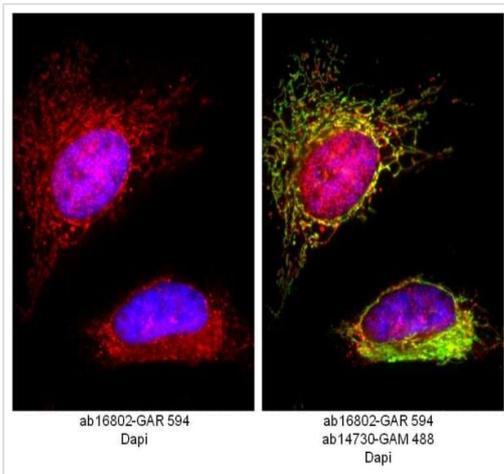


ab16802 at a 1/2000 dilution staining approx. 42kDa Glutamine synthetase in 1) 293T cell lysate transfected with Myc-Glutamine synthetase, 2) mouse brain lysate, 3) mouse liver lysate and 4) rat brain lysate by Western blot (ECL).



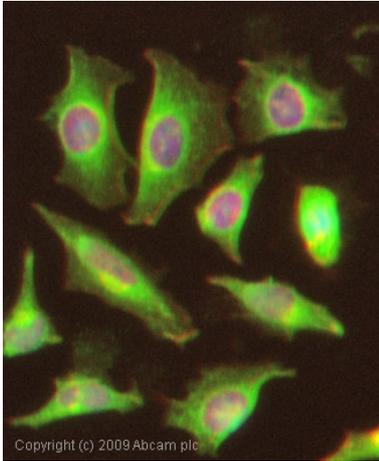
In-Cell ELISA - Anti-Glutamine Synthetase antibody (ab16802)

Left panel shows scanned image of an amine coated plate seeded with a titration of HeLa cells and stained with different dilutions of ab160802 using In Cell ELISA support pack ab111542 and protocol. Right panel shows bar graph of normalized signal intensity in 3 different cells lines after staining with ab160802 at 1/2500 dilution. Average intra-assay coefficient of variation was calculated at 5.6% and Z score at 0.77.



Immunocytochemistry/ Immunofluorescence - Anti-Glutamine Synthetase antibody (ab16802)

HeLa cells were seeded on glass coverslips and allow to adhere overnight. Cells were fixed with 4% paraformaldehyde for 15 min and washed in PBS x3. ICC procedure was carried out using In Cell ELISA support pack ab111541 and protocol. Left panel shows HeLa cells stained with ab16802 at a dilution of 1/1000, labeled with Goat anti-rabbit 594 secondary antibody and counterstain with DAPI. Right panel shows co-localization of the signal with the mitochondrial marker Anti-ATPB antibody [3D5] ab14730 (4µg/mL) labeled with Goat anti-mouse 488 secondary antibody.



Immunocytochemistry/ Immunofluorescence - Anti-Glutamine Synthetase antibody (ab16802)

ICC/IF image of ab16802 stained HeLa cells. The cells were 4% PFA fixed (10 min) and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab16802, 1µg/ml) overnight at +4°C. The secondary antibody (green) was Alexa Fluor® 488 goat anti-rabbit IgG (H+L) used at a 1/1000 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (red) at a 1/200 dilution for 1h. DAPI was used to stain the cell nuclei (blue) at a concentration of 1.43µM.

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

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