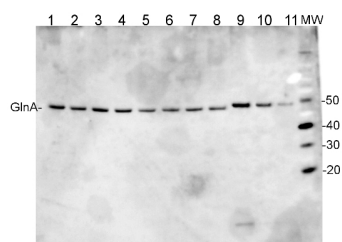


Product no **AS01 018****Anti-GlnA | Glutamine synthetase****Product information**

<b>Immunogen</b>	KLH-conjugated synthetic peptide derived from available bacterial GlnA sequences with perfect conservation in alpha, beta, gamma Proteobacteria, Enterobacteria, Thermotogales, Low GC Gram+, Cyanobacteria (except weak conservation with <i>Trichodesmium thiebautii</i> ) including <i>Synechocystis</i> PCC 6803 <a href="#">Q59981</a>
<b>Host</b>	Chicken
<b>Clonality</b>	Polyclonal
<b>Purity</b>	Purified, total IgY (chicken egg yolk immunoglobulin) in PBS pH 8. Contains 0.02 % sodium azide.
<b>Format</b>	Liquid
<b>Quantity</b>	50 µl (16 mg/ml)
<b>Storage</b>	Store at 4°C; make aliquots to avoid working with a stock. Please remember to spin the tubes briefly prior to opening them to avoid any losses that might occur from material adhering to the cap or sides of the tube.
<b>Additional information</b>	Peptide target used to elicit this antibody has a weak, sporadic conservation with Glutamine Synthetase to III, antibody not expected to detect this enzyme, Weak conservation with some Glutaminyl-tRNA synthetase (Glutamine--tRNA ligase) (GLNRS), but this antibody is not expected to detect this enzyme

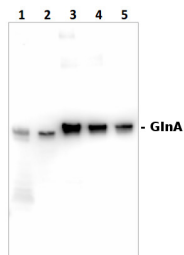
**Application information**

<b>Recommended dilution</b>	1 : 5000 (WB)
<b>Expected   apparent MW</b>	53 kDa
<b>Confirmed reactivity</b>	<i>Deinococcus radiodurans</i> , <i>Synechococcus</i> sp. strain PCC 7942, <i>Synechocystis</i> sp. strain PCC 6803, <i>Trichodesmium</i> IMS
<b>Predicted reactivity</b>	Alpha, beta, gamma proteobacteria, <i>Arthropsira</i> sp. PCC 8005, <i>Crenarchaeotes</i> , <i>Enterobacteria</i> , <i>Escherichia coli</i> , <i>Euryarchaeotes</i> , <i>Thermotogales</i>
	Species of your interest not listed? <a href="#">Contact us</a>
<b>Not reactive in</b>	Diatoms, eukaryotic GlnA
<b>Selected references</b>	<a href="#">Schmier</a> and Shuman (2018). <i>Deinococcus radiodurans</i> HD-Pnk, a Nucleic Acid End-Healing Enzyme, Abets Resistance to Killing by Ionizing Radiation and Mitomycin C. <i>J Bacteriol.</i> 2018 Aug 10;200(17). pii: e00151-18. doi: 10.1128/JB.00151-18. <a href="#">Brown</a> et al. (2008). Flux capacities and acclimation costs in <i>Trichodesmium</i> from the Gulf of Mexico. <i>Marine Biol.</i> 154:413-422. <a href="#">Burns</a> et al. (2006). Inorganic carbon repletion constrains steady-state light acclimation in the cyanobacterium <i>Synechococcus elongatus</i> . <i>J. Phycol.</i> 42:610-621.

**Application example**

**3 µg of total protein** from *Trichodesmium* IMS 101 extracted with Agrisera Protein Extraction Buffer ([AS08 300](#)) (1-8) and GlnA protein standard 0.3, 0.15, 0.07 pmol (9-11) were separated on **4-12% NuPage** (Invitrogen) **LDS-PAGE** and blotted 1h to **PVDF**. Blots were blocked immediately following transfer in 2% blocking reagent in 20 mM Tris, 137 mM sodium chloride pH 7.6 with 0.1% (v/v) Tween-20 (TBS-T) for 1h at room temperature with agitation. Blots were incubated in the primary antibody at a dilution of 1: 50 000 for 1h at room temperature with agitation. The antibody solution was decanted and the blot was rinsed briefly twice, then washed once for 15 min and 3 times for 5 min in TBS-T at room temperature with agitation. Blots were incubated in secondary antibody (anti-hen IgY horseradish peroxidase conjugated) diluted to 1:50 000 in 2% blocking solution for 1h at room temperature with agitation. The blots were washed as above and developed for 5 min with chemiluminescent detection reagent in extreme femtomogram range, according to the manufacturer's instructions. Images of the blots were obtained using a CCD imager

nd Quantity One software Exposure time was 10 seconds.



Total protein (1.5 µg) from *Synechococcus* sp. strain PCC 7942 (**1**) and *Synechocystis* sp. strain PCC 6803 (**2**) and GlnA recombinant protein standard ([AS09 018S](#)), 600, 400 and 200 fmol (**3-5**) were separated on a 4-12% Bolt gel (Thermo-Fisher) LDS-PAGE and blotted 1h to PVDF. Blots were blocked immediately following transfer in 2% blocking agent in 20 mM Tris, 137 mM sodium chloride pH 7.6 with 0.1% (v/v) Tween-20 (TBS-T) for 1h at room temperature with agitation. Blots were incubated GlnA primary antibody ([AS01 018](#)) diluted to 1:20 000 in 2% blocking solution for 1h at room temperature with agitation. The antibody solution was decanted and the blot was rinsed briefly three times, then washed once for 15 min and 3 times for 5 min in TBS-T at room temperature with agitation. Blots were incubated in secondary antibody (anti-chicken IgY horseradish peroxidase conjugated, [AS10 1489](#)) diluted to 1:20 000 in 2% blocking solution for 1h at room temperature with agitation. The blots were washed as above and developed for 5 min with chemiluminescent detection reagent of extreme femotgram sensitivity, according the manufacturer's instructions. Images of the blots were obtained using a CCD imager and Quantity One software. Exposure time was 15 seconds.