**Background**
FtsZ (cell division GTPase) is a well characterized protein of the bacterial cell division apparatus. This protein accumulates early in dividing cells, and has a crucial role during septum formation in most bacteria as well as in chloroplasts. It has also been accepted as the bacterial cytoskeletal counterpart to eukaryotic microtubules.

**Immunogen**
Whole cyanobacterial (*Anabaena PCC 7120*) FtsZ protein Q3MC27 overexpressed in *E.coli*.

**Host**
Rabbit

**Clonality**
Polyclonal

**Purity**
Serum

**Format**
Lyophilized

**Quantity**
200 µl

**Reconstitution**
For reconstitution add 200 µl of sterile water.

**Storage**
Store lyophilized/reconstituted at -20°C; once reconstituted make aliquots to avoid repeated freeze-thaw cycles. Please, remember to spin tubes briefly prior to opening them to avoid any losses that might occur from lyophilized material adhering to the cap or sides of the tubes.

**Immunofluorescence (IF), Immunolocalization (IL), Western blot (WB)**

**Related products**

- AS09 413 | Anti-FtsZ1 and 2 | plant cell division protein ftsZ1 and ftsZ2 , rabbit antibody
- AS10 715 | Anti-FtsZ procaryotic cell division GTPase (bacterial), rabbit antibody
- AS13 2651 | Anti-FtsZ2 plant cell division protein ftsZ2, rabbit antibody

**Additional information**
To detect *E.coli* FtsZ protein we recommend a following product: AS10 715 | anti-FtsZ procaryotic cell division GTPase (bacterial), rabbit antibody

To detect FtsZ protein in higher plants following antibodies are recommended:

- AS09 413 | Anti-FtsZ1 and 2 | Plant cell division protein FtsZ1 and FtsZ2, rabbit antibodies
- AS13 2651 | Anti-FtsZ2 | Plant cell division protein ftsZ2, rabbit antibodies

**Recommended dilution**
1 : 200 (IL) Immunogold-TEM, 1 : 500 (IF), 1 : 2000-1 : 5000 (WB)

**Expected | apparent MW**
44.5 | 50 kDa

**Confirmed reactivity**
*Cylindrospermopsis raciborskii CS-505, Listeria monocytogenes (weak reaction), Synechococcus elongatus*

**Predicted reactivity**
*Phaeodactylum tricornutum, Prochlorococcus sp.*

**Not reactive in**
No confirmed exceptions from predicted reactivity are currently known.

**Additional information**
This antibody can be used as a loading control antibody in cyanobacteria.

Immunofluorescence has been done by labelling *Synechococcus elongatus* cells at 30°C for 2 hours with FtsZ antibodies diluted to 1: 500 in blocking buffer. Detection images can be found in *Kabeya* et al (2010).

**Selected references**


Application example

Total protein samples (5 or 10 µg) from: Arabidopsis thaliana, leaf (1), Synechocystis 6803 motile (2), Synechocystis 6803 GT (glucose tolerant strain) (3), Synechococcus elongates 7942 (4), Marker - Pierce™ Prestained Protein MW Marker (kat #26612) were extracted with buffer (10mM Tris HCl, pH 8.0, 0.5% LDS, 4% glycerol, 0.1 mM EDTA) were mixed with sample buffer and denatured for 5 min at 95°C. Samples were separated on 10% SDS-PAGE and blotted 1h to nitrocellulose membrane (Amersham Protran) using semi-dry transfer (Bio-Rad) in standard transfer buffer in presence of 10% methanol. Transfer of proteins to the membrane was checked using 0,5% Ponceau S staining before the blocking step. Blots were blocked in buffer (2% low-fat milk in 1xPBS, 0,1% Tween) for 1h at room temperature (RT) with agitation. Blots were incubated in the primary antibody at a dilution of 1: 1000 at RT 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 PBS-T at RT with agitation. Blot was incubated in secondary antibody (goat anti-rabbit IgG, AS09 602, Agrisera) diluted to 1:30 000 for 1h at RT with agitation. The blot was washed as above and developed for 5 min with C larity Western ECL Substrate and ChemiDoc detection system.

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