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Product no AS10 715

Anti-FtsZ | Procaryotic cell division GTPase

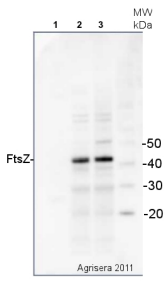
Product information

Immunogen	KLH-conjugated synthetic peptide derived from known bacterial sequences of FtsZ including *E.coli* UniProt: P0A9A6
Host	Rabbit
Clonality	Polyclonal
Purity	Serum
Format	Lyophilized
Quantity	50 µl
Reconstitution	For reconstitution add 50 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 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.

Application information

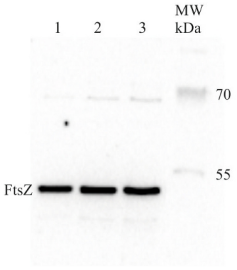
Recommended dilution	1 : 100-1 : 200 (IF), 1 : 1000 (WB)
Expected | apparent MW	40 | 42 kDa
Confirmed reactivity	*Candidatus Moranella endobia* PCIT , *Escherichia* DH5a, *Escherichia coli* BW 25113, *Shigella flexneri*
Predicted reactivity	*Candidatus sp., Citrobacter* sp. 30_2, *Dickeya* sp., <e Species of your interest not listed? Contact usm>Enterobacter sp., Klebsiella pneumoniae subsp. pneumoniae MGH, *Salmonella* sp., *Shigella sonnei* Ss046, *Vibrio sp., Yersinia pestis* D182038, *Xanthomonas oryzae*
Not reactive in	*Alysiella filiformis, B. subtilis*, *Haloferax mediterranei* (*Listera* sp., *Neisseria meningitidis*, *Pseudomonas aeruginosa*, *Staphylococcus aureus* (strain MRSA252), cyanobacteria
Selected references	Chakraborty et al. (2024). Dynamics of interdomain rotation facilitates FtsZ filament assembly. JBC, 7 May 2024, 107336. Vedyaykin et al. (2020). SulA is able to block cell division in Escherichia coli by a mechanism different from sequestration. Biochem Biophys Res Commun . DOI: 10.1016/j.bbrc.2020.03.012 Ranjit et al. (2020). Chlamydial MreB Directs Cell Division and Peptidoglycan Synthesis in Escherichia coli in the Absence of FtsZ Activity. mBio. 2020 Feb 18;11(1). pii: e03222-19. doi: 10.1128/mBio.03222-19. (Immunofluorescence) Sekar et al. (2018). Synthesis and degradation of FtsZ quantitatively predict the first cell division in starved bacteria. Mol Syst Biol. 2018 Nov 5;14(11):e8623. doi: 10.15252/msb.20188623. Mückl et al. (2018). Filamentation and restoration of normal growth in Escherichia coli using a combined CRISPRi sgRNA/antisense RNA approach. PLoS One. 2018 Sep 11;13(9):e0198058. doi: 10.1371/journal.pone.0198058. eCollection 2018. Pende et al. (2014). Size-independent symmetric division in extraordinarily long cells. Nat Commun. 2014 Sep 15;5:4803. doi: 10.1038/ncomms5803. Söderström et al. (2014). Disassembly of the divisome in Escherichia coli: Evidence that FtsZ dissociates before compartmentalisation. Mol Microbiol. 2014 Feb 7. doi: 10.1111/mmi.12534. (western blot and immunofluorescence)

Application example



5 µg of total protein from *Synechocystis* sp. (1), *E.coli* DH5a (2), *E. coli* (3), extracted with Agrisera PEB extraction buffer were separated on **4-12% SDS-PAGE** and blotted 1h to **PVDF**. Blots were blocked with Advance blocking reagent for 1h at room temperature (RT) with agitation. Blot was incubated in the primary antibody at a dilution of 1: 10 000 for 1h 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 TBS-T at RT with agitation. Blot was incubated in secondary antibody (anti-rabbit IgG horse radish peroxidase conjugated, from Agrisera, AS09 602) diluted to 1:25 000 in for 1h at RT with agitation. The blot was washed as above and developed for 5 min with ECL according to the manufacturers instructions. Exposure time was 120 seconds.



Total protein extract from *E. coli* CFT073: 8µg (1), 12µg (2), 16µg (3). Proteins were separated on 10% SDS-PAGE and blotted to PVDF. Blocked with 5 % non-fat milk in TBS-T for 1 hour. Blot was incubated in the primary antibody at a dilution of 1 :10 000 for 1 h at RT with agitation. Secondary antibody (anti-rabbit IgG, HRP conjugated, Agrisera, AS09 602) were diluted to 1 : 50 000 and blot was incubated for 1h at RT with agitation. Immunodetection was performed using chemiluminescent detection method for 3 min. Scan was made after 30 sec.

Courtesy of Dr. Marta Kicia, Wroclaw Medical University, Poland