

## SUPPLEMENTARY MATERIALS

Article

# Magnesium Hydroxide Nanoparticles Kill Exponentially Growing and Persister *Escherichia coli* Cells by Causing Physical Damage

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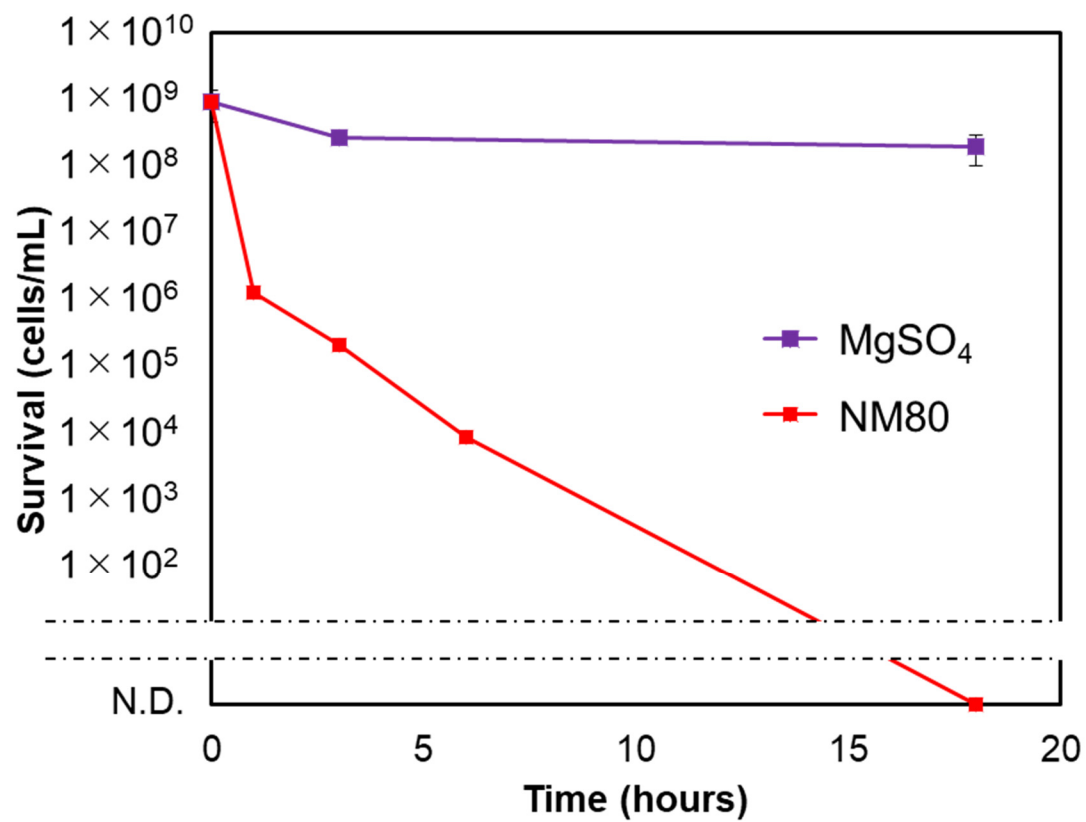
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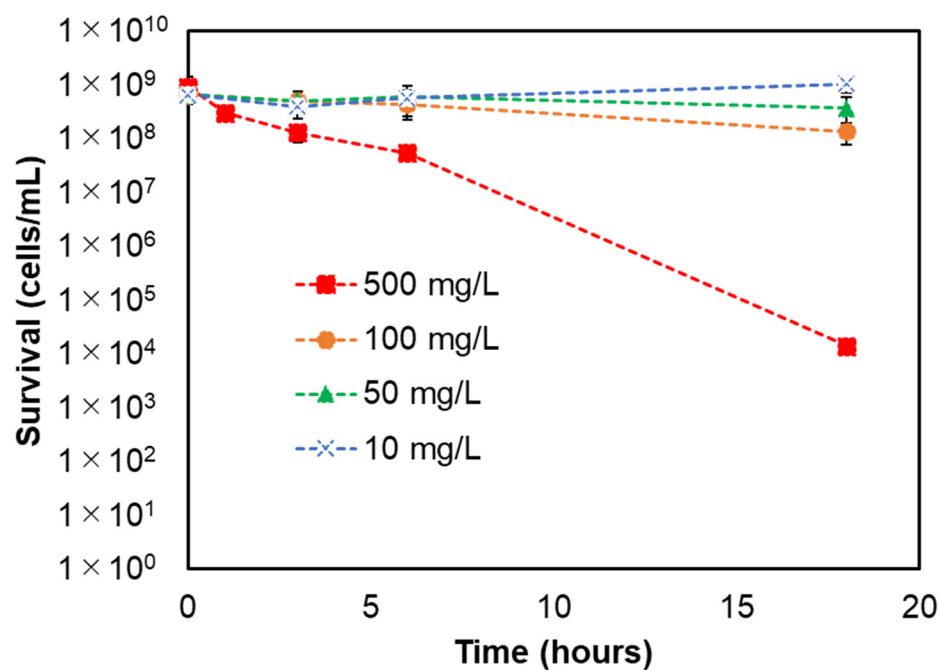
**Table S1.** Data of XRD measurements. FWHM (full width at half maximum) indicates diffraction line width spread.

	FWHM [°2Th.]	Crystalline size [Å]	Crystal plane
NM80	0.830	97	(001)
	0.520	161	(101)
	0.190	479	(110)
NM300	0.235	342	(001)
	0.199	423	(101)
	0.150	607	(110)
NM700	0.165	489	(001)
	0.163	515	(101)
	0.155	587	(110)

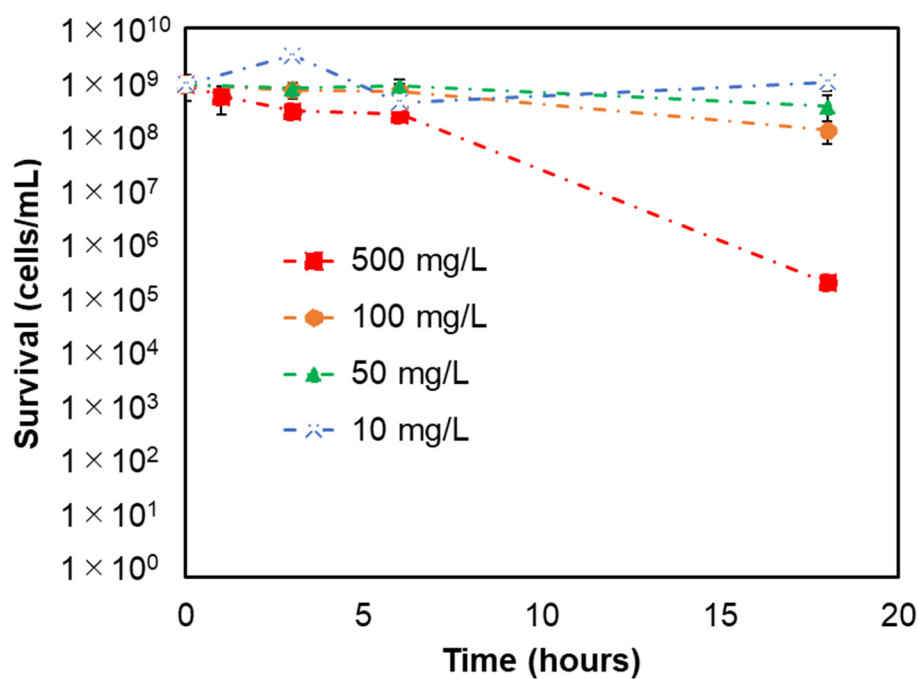


**Figure S1.** Bactericidal effects of MgSO<sub>4</sub> on *E. coli* at a concentration of 500 mg/l (purple line).

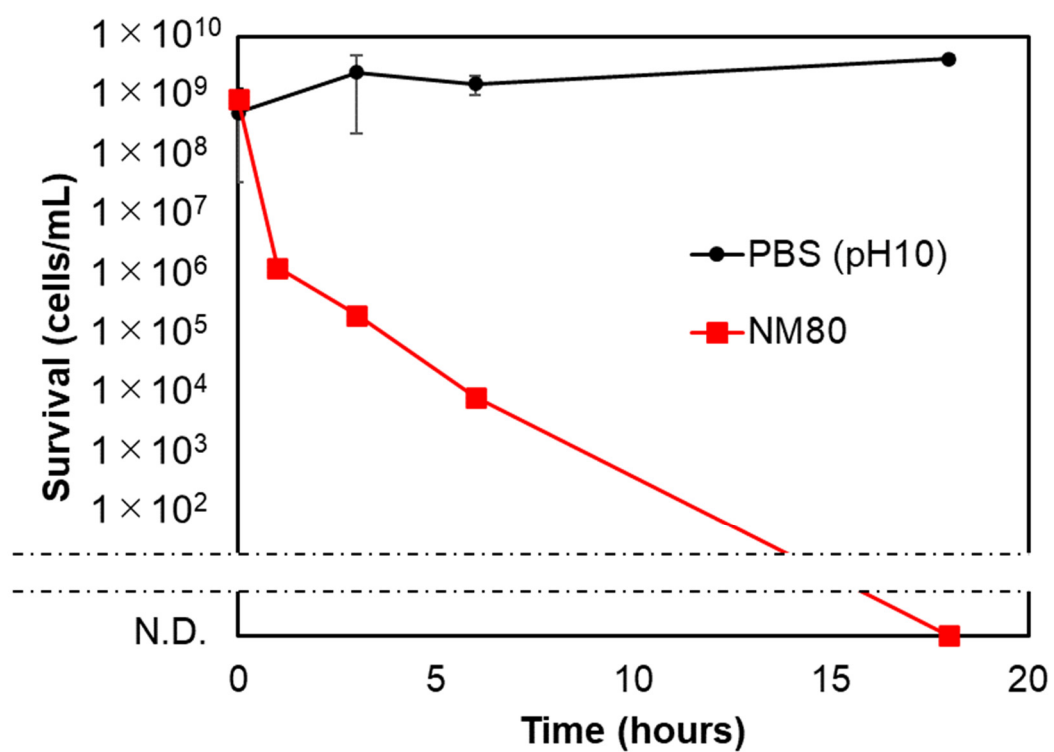
### (A) NM300



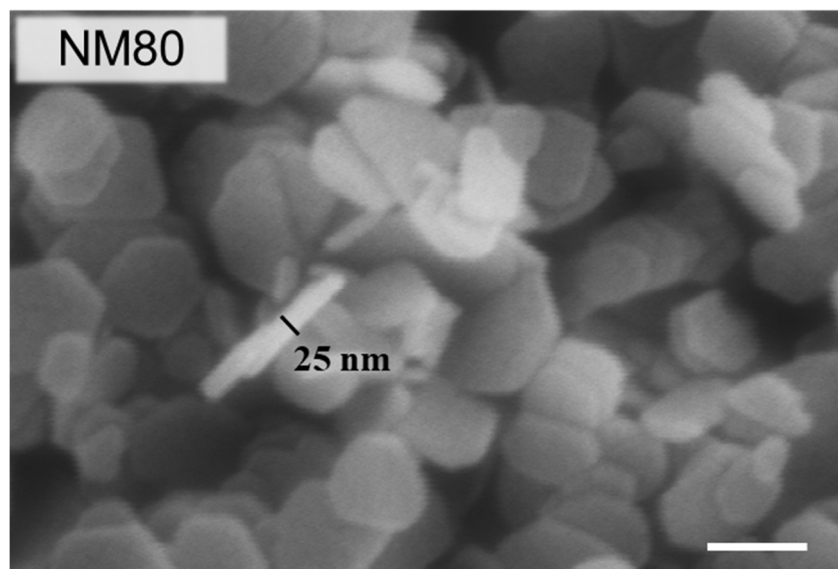
### (B) NM700



**Figure S2.** Bactericidal effect of NM300 (A) and NM700 (B) at different concentrations; 500 mg/l (red), 100 mg/l (orange), 50 mg/l (green), and 10 (blue) mg/l were examined for sterilizing *E. coli*.



**Figure S3.** Bactericidal effects of PBS on *E. coli* at pH 10 (black line).



**Figure S4.** Magnified SEM images of NM80. Scale bar indicates 100  $\mu\text{m}$ . Black line indicates the thickness of NM80.