

Table S1: Ag NPs and antibacterial activity evaluation of selected publications from 2015-2018 period.

Stabilizer	NPs size (nm)	Bacteria	Bacteria origin	Protocol	Culture media	CFU/mL	MIC (µg/mL)	MBC (µg/mL)	Disk loading	ZOI (mm)	Reference
“Naked”	19.5 ± 7.7	<i>E. faecalis</i>	KCCM 13807	Kirby-Bauer method	Mueller Hinton Agar	10 ⁷	256*	N/A	30 µg	20*	[3]
		<i>S. aureus</i>	KCTC 1916				32–64*			18*	
		<i>S. epidermidis</i>	KCTC 1971				32–64*			21*	
		<i>B. subtilis</i>	KCTC 1021	Microdilution method	Luria Bertani		128*			14*	
		<i>E. coli</i>	KCTC 1682				128–256*			16*	
		<i>S. typhimurium</i>	KCCM 40253	MIC90			32–64*			17*	
		<i>S. enterica</i>	KACC 10763				256*			16*	
“Naked”	≈10	<i>A. baumannii</i> (n = 17)	Clinical isolates	Microdilution method	N/A	N/A	0.39–0.78	/	/	/	[4]
		<i>A. baumannii</i>	ATCC 1906				0.78				
		<i>A. nosocomialis</i> (n = 10)	Clinical isolates				0.39–0.78				
“Naked”	10	<i>E. coli</i>	N/A	Kirby-Bauer method	Mueller Hinton 2 Agar	N/A	/	/	N/A	1–2	[5]
	20									1–2	
	40									1–2	
“Naked”	55.6 ± 2.9 (DLS)	<i>P. aeruginosa</i> (n = 3)	Clinical isolates	Kirby-Bauer method	Cation Adjusted Mueller Hinton	1–5 × 10 ⁹	1.06	2.125	N/A	N/A	[6]
							1.06	2.125			
							4.25	4.25			
		<i>S. maltophilia</i> (n = 3)		Microdilution method			2.125	4.25			
							2.125	4.25			
							1.06	2.125			
		<i>B. cepacian</i> (n = 3)		TKA			4.25	4.25			
							4.25	4.25			
							4.25	4.25			
		<i>S. aureus</i> (n = 3)					8.5	17.0			
							8.5	8.5			
							8.5	8.5			
“Naked”	2–5 (70–75% TEM)	<i>L. monocytogenes</i>	PCM 2191	Microdilution method	Tryptone Soy yeast extract broth	2 × 10 ⁶	8	/	/	/	[7]
“Naked”	23.6 (TEM) 57.8 (DLS)	<i>E. coli</i> (K-12)	KCTC 1116	Growth Curves	Luria Bertani	1 × 10 ⁸	/	/	/	/	[8]
“Naked”	10	<i>S. aureus</i>	ATCC 25923	Agar Well diffusion method	Mueller Hinton Agar	2 × 10 ⁸	12.5	25	N/A	25–30	[9]
		<i>S. aureus</i> (n = 30)	Clinical Isolates	Microdilution method	Luria-Bertani		12.5 (16) 25 (14)	12.5 (17) 25 (13)	12.5 µg/mL (18) 25 µg/mL (12)		

N/A: not available; KCCM: Korean Culture Center of Microorganisms; KCTC: Korean Collection of Type Cultures; KACC: Korean Agriculture Culture Collection; MIC: minimal inhibitory concentration; ATCC: American Type Culture Collection; DLS: dynamic light scattering; TKA: Time Kill Assay; TEM: transmission electron microscope; PCM: Polish Collection of Microorganisms; *estimated.

Stabilizer	NPs size (nm)	Bacteria	Bacteria origin	Protocol	Culture media	CFU/mL	MIC (µg/mL)	MBC (µg/mL)	Disk loading	ZOI (mm)	Reference
“Naked”	40 (TEM)	<i>S. aureus</i>	N/A	Agar Well diffusion method	Mueller Hinton Agar	N/A	/	/	N/A	27.7 ± 0.62	[10]
		<i>B. cereus</i>								24.1 ± 0.80	
		<i>P. aeruginosa</i>								15.8 ± 0.41	
		<i>K. pneumoniae</i>								28.2 ± 1.07	
		<i>E. coli</i>								29.4 ± 0.56	
Unknown “Naked”	35 27.2	<i>E. coli</i> (K-12)	JM 109	Agar Well diffusion method	Mueller Hinton	1 × 10 ⁴			N/A 20 µg/mL	5 7	[11]
Citrate	23 ± 2 (TEM)	<i>L. monocytogenes</i> (n = 20)	Clinical isolates	Colony Forming Units	Mueller Hinton	1 × 10 ⁸	/	/	/	/	[12]
		<i>L. monocytogenes</i>	ATCC 13932								
Citrate	6.0–28.2 (XRD)	<i>S. aureus</i>	ATCC 25923	Kirby-Bauer method	Nutrient Agar	1 × 10 ⁴	/	/	0.25–3 mmol/mL	10 to 25 3 to 11	[13]
		<i>E. coli</i>	ATCC 35218								
Citrate	2.3 ± 0.5	<i>S. aureus</i>	ATCC 35696	Microdilution method Kirby-Bauer method Growth Curves	Broth medium	10 ⁸ –10 ⁹	7.8	15.6	62.5 µg/mL	18.8	[14]
		<i>E. coli</i>	ATCC 23282				7.8	15.6		19.5	
	12.5 ± 2.2	<i>S. aureus</i>	ATCC 35696				15.6	31.3		14.8	
		<i>E. coli</i>	ATCC 23282				15.6	31.3		16.2	
	32.4 ± 6.5 (TEM)	<i>S. aureus</i>	ATCC 35696				62.5	125		9.3	
		<i>E. coli</i>	ATCC 23282				62.5	125		11.0	
Citrate	40–50	<i>S. aureus</i>	ATCC 25923	Microdilution method Kirby-Bauer method TKA	Nutrient Agar	10 ⁸ –10 ⁹	190	N/A	242 µg	14*	[15]
		<i>B. subtilis</i>	AST5-2				195			15*	
		<i>P. aeruginosa</i>	AL2-14B				188			11*	
		<i>K. pneumoniae</i>	AWD5				184			17*	
		<i>E. coli</i>	ATCC 25922				190			5*	
	20 × 20–90	<i>S. aureus</i>	ATCC 25923				358			10*	
		<i>B. subtilis</i>	AST5-2				350			13*	
		<i>P. aeruginosa</i>	AL2-14B				348			9*	
		<i>K. pneumoniae</i>	AWD5				320			14*	
		<i>E. coli</i>	ATCC 25922				340			6*	
Citrate	20.1 ± 4.4 (TEM)	<i>E. coli</i>	ATCC 25922	TKA	Luria Bertani Tryptone Soy MRS	1 × 10 ⁶	/	17.5	/	/	[16]
		<i>S. aureus</i>	ATCC 25923					14			
		<i>L. bulgaricus</i>	CGMCC 1.6970					9			
		<i>L. casei</i>	CGMCC 1.2435					8			
Citrate	10–40 (TEM)	<i>E. coli</i>	ATCC 25922	Growth Curves	Luria Bertani	/	/	/	/	/	[17]

N/A: not available; ATCC: American Type Culture Collection; DLS: dynamic light scattering; TKA: Time Kill Assay; TEM: transmission electron microscope; XRD: X-ray diffraction; CGMCC: China General Microbiological Culture Collection Center; MRS: deMan, Rogosa and Sharpe medium; *estimated from publication.

Stabilizer	NPs size (nm)	Bacteria	Bacteria origin	Protocol	Culture media	CFU/mL	MIC (μg/mL)	MBC (μg/mL)	Disk loading	ZOI (mm)	Reference
Citrate	20 ± 9 25 ± 3 11 ± 6 (TEM)	<i>S. aureus</i>	ATCC 25923	Agar Well diffusion method	Nutrient Agar	10 ⁸ –10 ⁹	/	/	0.1 M (AgNO ₃)	N/A	[18]
Citrate	42–58 (TEM)	<i>S. aureus</i> <i>S. pyogenes</i> <i>S. typhi</i> <i>P. aeruginosa</i>	N/A	Kirby-Bauer method	Tryptone Soy	10 ⁷	/	/	5μg/disc	14.8 13.6 12.5 19.1	[19]
Citrate	15	<i>E. coli</i> <i>B. subtilis</i>	N/A	Kirby-Bauer method	Nutrient Agar	1.5 × 10 ⁸	/	/	N/A	N/A N/A	[20]
	18	<i>E. coli</i> <i>B. subtilis</i>								7.0 6.5	
	30	<i>E. coli</i> <i>B. subtilis</i>								7.5 7.5	
	30 (DLS)	<i>E. coli</i> <i>B. subtilis</i>								N/A N/A	
GSH	10–50	<i>C. jejuni</i> (n = 22) <i>C. coli</i> (n = 18) <i>C. jejuni</i>	Animal or Human clinical isolates NCTC 11168	Microdilution method	Brucella Mueller Hinton	1 × 10 ⁸	9.85–39.4 4.92–39.4 4.92	9.85–39.4 9.85–39.4 9.85	/	/	[21]
D-xylose	33	<i>E. coli</i> <i>Klebsiella</i> spp.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	[22]
L-arabinose	30										
D-ribose	39										
D-glucose	25										
D-galactose	28										
D-mannose	25										
D-lactose	15										
D-xylose	18										
Citrate	10.15 ± 3.37	<i>P. aeruginosa</i> (PAO1)	N/A	Microdilution method	Luria Bertani without Chloride ions	1 × 10 ⁸	17.5	75	/	/	[23]
L-fucose	(TEM)						7.5	40			
PEG	15.8 ± 2.2 (TEM)	<i>S. aureus</i>	ATCC 6538	Microdilution method	Mueller Hinton	N/A	4.7	/	/	/	[24]
		<i>P. aeruginosa</i>	ATCC 15442				2.3				
		<i>S. enterica</i>	ATCC 10708				2.3				
		<i>E. coli</i>	ATCC 11229				1.2				

N/A: not available; ATCC: American Type Culture Collection; DLS: dynamic light scattering; TEM: transmission electron microscope; GSH: glutathione; NCTC: National Collection of Type Culture; PEG: polyethylene glycol.

Stabilizer	NPs size (nm)	Bacteria	Bacteria origin	Protocol	Culture media	CFU/mL	MIC (μg/mL)	MBC (μg/mL)	Disk loading	ZOI (mm)	Reference					
PC	3.3 ± 0.9 4.9 ± 2.9 (TEM)	<i>E. coli</i> <i>S. aureus</i>	OW6 Mu50	Growth curves	Todd Hewitt broth	/	/	/	/	/	[25]					
PVA	31	<i>E. coli</i> <i>Pseudomonas sp</i>	N/A	Kirby-Bauer method	Nutrient Agar	N/A	/	/	N/A	3.4 4.1	[26]					
	24	<i>E. coli</i> <i>Pseudomonas sp</i>								4.9 6.2						
	19	<i>E. coli</i> <i>Pseudomonas sp</i>								7.0 8.1						
	14 (SEM)	<i>E. coli</i> <i>Pseudomonas sp</i>								8.8 10.2						
	PVP/citrate	50–60 70–80								<i>E. coli</i>		N/A	Colony Forming Units	Nutrient Agar	/	/
PVP	14.0 ± 0.3 (TEM)	<i>E. coli</i> (K-12)	MG1655	Growth curves	Tryptone Soy	/	/	/	/	/	[28]					
		<i>B. subtilis</i>	ATCC 6051													
	5	<i>E. coli</i>	ATCC 8739	Poisoned Food Technique	Mueller Hinton	1 × 10 ⁸	/	/	/	[29]						
		<i>P. aeruginosa</i>	ATCC 9027													
		<i>S. aureus</i>	ATCC 6538													
		<i>S. epidermidis</i>	ATCC 12228													
	20	<i>E. coli</i>	ATCC 8739								Kirby-Bauer method	N/A	3 × 10 ⁸	/	10 μg/mL	15
		<i>P. aeruginosa</i>	ATCC 9027													
		<i>S. aureus</i>	ATCC 6538													
		<i>S. epidermidis</i>	ATCC 12228													
	8	<i>A. hydrophila</i>	4AK4	Microdilution method	Mueller Hinton	No activity	0									
		<i>P. putida</i>	KT2442					No activity	0							
		<i>E. coli</i>	Trans 1-T1							No activity	0					
		<i>B. subtilis</i>	ATCC 28357									No activity	0			
		<i>S. aureus</i>	N/A											10 μg/mL	6	
29 (TEM)	<i>A. hydrophila</i>	4AK4	Microdilution method	Mueller Hinton	No activity	0										
	<i>P. putida</i>	KT2442					No activity	0								
	<i>E. coli</i>	Trans 1-T1							No activity	0						
	<i>B. subtilis</i>	ATCC 28357									No activity	0				
	<i>S. aureus</i>	N/A											10 μg/mL	6		

N/A: not available; ATCC: American Type Culture Collection; DLS: dynamic light scattering; TKA: Time Kill Assay; TEM: transmission electron microscope; PCM: Polish Collection of Microorganisms; XRD: X-ray diffraction; CGMCC: China General Microbiological Culture Collection Center; GSH: glutathione; NCTC: National Collection of Type Culture; PEG: polyethylene glycol; CTAB: cetyl-trimethyl ammonium bromide; NTA: nanoparticle tracking analysis; PC: phosphorylcholine; PVA: polyvinyl alcohol; SEM: scanning electron microscope; PVP: polyvinylpyrrolidone.

Stabilizer	NPs size (nm)	Bacteria	Bacteria origin	Protocol	Culture media	CFU/mL	MIC (µg/mL)	MBC (µg/mL)	Disk loading	ZOI (mm)	Reference		
PVP	15.6 (TEM)	<i>Citrobacter sp</i> <i>Enterococcus sp</i>	N/A	Colony Forming Units	N/A	/	/	/	/	/	[31]		
	3–34 (TEM)	<i>S. aureus</i> PTCC No. 1112 <i>E. coli</i> PTCC No. 1330	ATCC 6537 ATCC 8739	N/A	Mueller Hinton	1 × 10 ⁷	N/A	N/A	N/A	N/A	[32]		
	10–15 (TEM)	<i>E. coli</i> <i>S. aureus</i>	ATCC 25922 ATCC 25923	Kirby-Bauer method	Nutrient Agar	1 × 10 ⁷ –10 ⁸	/	/	100 µL	N/A	[33]		
	60 ± 15	<i>E. coli</i>	ATCC 25922	Growth curves Microdilution method	Luria Bertani	10 ³	50.0 ± 5.2	/	/	/	[34]		
	55 ± 10					10 ⁴	75.0 ± 2.6						
						10 ⁵	100.0 ± 7.0						
						10 ⁶	100.0 ± 6.0						
						10 ³	25 ± 4.6						
	60 × 2000–4000	10 ⁴	37.5 ± 5.3										
		10 ⁵	50.0 ± 3.5										
10 ⁶		75.0 ± 4.6											
10 ³		50.0 ± 4.6											
20.6 ± 3.1	10 ⁴	100.0 ± 5.3											
	10 ⁵	> 100.0											
	10 ⁶	> 100.0											
PVP/Glycerol	31.2 (TEM) 46.5 (DLS)	<i>C. jejuni</i> (n = 4) <i>C. jejuni</i> <i>Salmonella spp.</i> (n = 5)	Chicken isolates	Microdilution method	Mueller Hinton	1 × 10 ⁸	3.125–6.25	/	/	/	[35]		
			NCTC 11168		Luria Bertani		10 ⁵					6.25	12.5–25
			Chicken isolates										
Oleylamine	10 (TEM)	<i>B. subtilis</i>	ATCC 29544	Microdilution method	Luria Bertani	1 × 10 ⁸	125	/	200 mg/L	14.3	[36]		
			ATCC BAA894				125			13.8			
Casein	12.5 ± 4 (TEM) 50.0 ± 0.7 (DLS)	<i>E. coli</i> <i>P. aeruginosa</i>	ATCC 29004	Oxford cup method	Luria Bertani	1 × 10 ⁹	62.5	/	/	16.3	[37]		
			ATCC 12868				62.5			16.0			
			ATCC 6633	Growth curves	Luria Bertani	/	/	/	/	/	[38]		
			MC 1061 DS 10-129				Bioluminescence inhibition assay		1 × 10 ⁹	/		/	/

N/A: not available; ATCC: American Type Culture Collection; TEM: transmission electron microscope; NCTC: National Collection of Type Culture; PVP: polyvinylpyrrolidone.

Stabilizer	NPs size (nm)	Bacteria	Bacteria origin	Protocol	Culture media	CFU/mL	MIC (µg/mL)	MBC (µg/mL)	Disk loading	ZOI (mm)	Reference
Sericin	3.78 ± 1.14 (TEM)	<i>S. aureus</i> <i>E. coli</i>	ATCC 25923 ATCC 25922	Cell counting (FCM)	Nutrient medium	N/A	/	/	/	/	[39]
Thioacetic acid	20–25	<i>S. aureus</i> <i>S. epidermidis</i> <i>A. baumannii</i> <i>P. aeruginosa</i>	ATCC 25923 ATCC 35984 ATCC 19606 ATCC 27853	Microdilution method	Mueller Hinton	N/A	1 1 10 10	1 10 10 10	/	/	[40]
Propionic acid	30–35	<i>S. aureus</i> <i>S. epidermidis</i> <i>A. baumannii</i> <i>P. aeruginosa</i>	ATCC 25923 ATCC 35984 ATCC 19606 ATCC 27853				1 1 1 10	1 1 10 10			
Lipoid acid	2.0 ± 0.5 (TEM)	<i>S. aureus</i> <i>E. coli</i> <i>E. coli</i>	N/A DH5α DSM4230	Growth curves	Luria Bertani	1 × 10 ⁶	/	/	/	/	[41]
PEG	44	<i>E. coli</i> <i>Pseudomonas</i> spp.	N/A	Kirby-Bauer method	Nutrient Agar	N/A	/	/	6 µL	3 3	[42]
EDTA	39	<i>E. coli</i> <i>Pseudomonas</i> spp.								4 5	
PVP	35	<i>E. coli</i> <i>Pseudomonas</i> spp.								6 6	
PVA	31 (SEM)	<i>E. coli</i> <i>Pseudomonas</i> spp.								7 8	
“Naked” Unknown	7.5	<i>S. aureus</i>	ATCC 29737	Agar Well diffusion method	Brain Heart Infusion	1.5 × 10 ⁸	9.7 × 10 ^{−8}	/		5–40*	[43]
		<i>S. mutans</i>	ATCC 35668				ND			5–22*	
		<i>S. pyogenes</i>	ATCC 8668				ND			8–20*	
		<i>E. coli</i>	ATCC 15224				ND			4–31*	
		<i>P. vulgaris</i>	ATCC 7829				ND			5–10*	
	10.1 (TEM)	<i>S. aureus</i>	ATCC 29737	Microdilution method	Mueller Hinton		4 × 10 ^{−9}			5–40*	
		<i>S. mutans</i>	ATCC 35668				4 × 10 ^{−8}			5–22*	
		<i>S. pyogenes</i>	ATCC 8668				4 × 10 ^{−8}			2–29*	
		<i>E. coli</i>	ATCC 15224				4 × 10 ^{−10}			6–39*	
		<i>P. vulgaris</i>	ATCC 7829				ND			3–5*	

N/A: not available; ATCC: American Type Culture Collection; DLS: dynamic light scattering; TEM: transmission electron microscope; PEG: polyethylene glycol; PVA: polyvinyl alcohol; SEM: scanning electron microscope; PVP: polyvinylpyrrolidone; EDTA: ethylenediaminetetraacetic acid; C12mim: 3-methylimidazolium chloride; FCM: Flow Cytometry; * estimated from publication.

Stabilizer	NPs size (nm)	Bacteria	Bacteria origin	Protocol	Culture media	CFU/mL	MIC (µg/mL)	MBC (µg/mL)	Disk loading	ZOI (mm)	Reference	
PVA	10	<i>A. baumannii</i> (n = 17)	Clinical isolates				MIC ₅₀ /MIC ₉₀ 13.5; ≥ 54	≥ 54		0*		
		<i>P. aeruginosa</i> (n = 12)	Clinical isolates				13.5; ≥ 54					
		<i>P. aeruginosa</i>	ATCC 27853 S				13.5					
		<i>P. aeruginosa</i>	INCQS 230									
		<i>Enterobacteriaceae</i> (n = 21)	Clinical isolates				≥ 54; ≥ 54					
		<i>S. maltophilia</i> (n = 2)	Clinical isolates				≥ 54; ≥ 54					
		<i>S. aureus</i> (n = 13)	Clinical isolates				≥ 54; ≥ 54					
		<i>S. aureus</i>	ATCC 29213				≥ 54					≥ 54
		<i>S. epidermidis</i>	INCQS 198				27					27
		<i>Enterococcus sp</i> (n = 14)	Clinical isolates				≥ 54; ≥ 54					
Citrate	40	<i>A. baumannii</i> (n = 17)	Clinical isolates	Agar Well diffusion method	Mueller Hinton	N/A	3.4; 3.4	6.7	50µL	12*	[44]	
		<i>P. aeruginosa</i> (n = 12)	Clinical isolates				3.4; 3.4					
		<i>P. aeruginosa</i>	ATCC 27853 S				3.4					
		<i>P. aeruginosa</i>	INCQS 230									
		<i>Enterobacteriaceae</i> (n = 21)	Clinical isolates	Microdilution method	Cation Adjusted		6.7; 6.7					
		<i>S. maltophilia</i> (n = 2)	Clinical isolates		Tryptone Soy		1.6; 1.6					
		<i>S. aureus</i> (n = 13)	Clinical isolates				6.7; 13.5					
		<i>S. aureus</i>	ATCC 29213				13.5					
		<i>S. epidermidis</i>	INCQS 198	Time kill assay	Mueller Hinton		6.7					27
		<i>Enterococcus sp</i> (n = 14)	Clinical isolates		Cation Adjusted		6.7; 13.5					6.7
Citrate	60	<i>A. baumannii</i> (n = 17)	Clinical isolates				≥ 10; ≥ 10	≥ 10		N/A		
		<i>P. aeruginosa</i> (n = 12)	Clinical isolates				≥ 10; ≥ 10					
		<i>P. aeruginosa</i>	ATCC 27853 S				≥ 10					
		<i>P. aeruginosa</i>	INCQS 230									
		<i>Enterobacteriaceae</i> (n = 21)	Clinical isolates				≥ 10; ≥ 10					
		<i>S. maltophilia</i> (n = 2)	Clinical isolates				≥ 10; ≥ 10					
		<i>S. aureus</i> (n = 13)	Clinical isolates				≥ 10; ≥ 10					
		<i>S. aureus</i>	ATCC 29213				≥ 10					
		<i>S. epidermidis</i>	INCQS 198				≥ 10					≥ 10
		<i>Enterococcus sp</i> (n = 14)	Clinical isolates				≥ 10; ≥ 10					≥ 10

N/A: not available; ATCC: American Type Culture Collection; DLS: dynamic light scattering; TEM: transmission electron microscope; PEG: polyethylene glycol; PVA: polyvinyl alcohol; SEM: scanning electron microscope;
 * estimated from publication.

Stabilizer	NPs size (nm)	Bacteria	Bacteria origin	Protocol	Culture media	CFU/mL	MIC (µg/mL)	MBC (µg/mL)	Disk loading	ZOI (mm)	Reference
Cysteine	7.6 ± 1.5	<i>S. aureus</i>	ATCC 29213	Microdilution method	Mueller Hinton Cation Adjusted	N/A	580	/	/	/	[45]
		<i>E. coli</i>	ATCC 23716				145				
PVP	7.7 ± 1.6 (TEM)	<i>P. aeruginosa</i>	ATCC 25619				35				
		<i>S. aureus</i>	ATCC 29213				69				
		<i>E. coli</i>	ATCC 23716				69				
		<i>P. aeruginosa</i>	ATCC 25619				73				
Citrate	10.2 ± 2.3	<i>E. coli</i>	MG 1655	Growth curves	Luria Bertani	1 × 10 ⁷	/	/	/	/	[46]
MPA	10.2 ± 2.5										
MHA	10.2 ± 2.2										
MPS	9.9 ± 2.0										
Citrate	40	<i>E. coli</i>	DH5α	Agar Well diffusion method	Luria Bertani	N/A	/	/	4 × 10 ⁻⁹ mg	20.2 ± 5.5	[47]
PVP				diffusion method						0.8 ± 1.4	
PEG				Growth curves						24.5 ± 2.4	
Lipoid acid	9.5 ± 1.9 (TEM)	<i>Actinomyces</i> (n = 1)	Clinical isolates	Plate dilution method	Brucella agar supplemented	5 × 10 ⁵	≤ 5	/	/	/	[48]
		<i>Bacteroides</i> (n = 4)	Clinical isolates				80 - ≥ 100				
		<i>Bacteroides fragilis</i>	ATCC 25285				≥ 100				
		<i>Bifidobacterium</i> (n = 1)	Clinical isolates				≤ 5				
		<i>Bifidobacterium breve</i>	ATCC 15700				10				
		<i>Finegoldia</i> (n = 2)	Clinical isolates				5-10				
		<i>Fusobacterium</i> (n = 4)	Clinical isolates				40 - ≥ 100				
		<i>Fusobacterium nucleatum</i>	ATCC 25585				40				
		<i>Parabacteroides</i> (n = 1)	Clinical isolates				80				
		<i>Parvimonas</i> (n = 2)	Clinical isolates				≤ 5				
		<i>Peptostreptococcus</i> (n = 1)	Clinical isolates	Microdilution method	Mueller Hinton	5 × 10 ⁵	≤ 5				
		<i>Peptostreptococcus anaerobius</i>	ATCC 25286				10				
		<i>Porphyromonas</i> (n = 3)	Clinical isolates				≤ 5-20				
		<i>Porphyromonas levii</i>	ATCC 29147				≤ 5				
		<i>Prevotella</i> (n = 5)	Clinical isolates				10 - ≥ 100				
		<i>Prevotella loescheii</i>	ATCC 15930				≥ 100				
		<i>Propionibacterium</i> (n = 2)	Clinical isolates				10-40				
		<i>Tannerella</i> (n = 1)	Clinical isolates				20				
		<i>S. aureus</i>	ATCC 25923				5.0				
		<i>S. aureus</i>	ATCC 6538				2.5				
		<i>S. aureus</i>	ATCC 6538P				5.0				
		<i>S. epidermidis</i>	ATCC 14990				5.0				
		<i>S. mutans</i>	ATCC 29175				5.0				

N/A: not available; ATCC: American Type Culture Collection; TEM: transmission electron microscope; PEG: polyethylene glycol; PVP: polyvinylpyrrolidone; MPA: mercaptopropionic acid; MHA: mercaptohexanoic acid; MPS: mercaptopropionic sulfonic acid.

Stabilizer	NPs size (nm)	Bacteria	Bacteria origin	Protocol	Culture media	CFU/mL	MIC (µg/mL)	MBC (µg/mL)	Disk loading	ZOI (mm)	Reference
PEG	9.8 ± 2.0 (TEM)	<i>Actinomyces</i> (n = 1)	Clinical isolates	Plate dilution method	Brucella agar supplemented	5 × 10 ⁵	≤ 5	/	/	/	[48]
		<i>Bacteroides</i> (n = 4)	Clinical isolates				40 - ≥ 100				
		<i>Bacteroides fragilis</i>	ATCC 25285				≤ 5				
		<i>Bifidobacterium</i> (n = 1)	Clinical isolates				≤ 5				
		<i>Bifidobacterium breve</i>	ATCC 15700				10				
		<i>Finegoldia</i> (n = 2)	Clinical isolates				5–20				
		<i>Fusobacterium</i> (n = 4)	Clinical isolates				40				
		<i>Fusobacterium nucleatum</i>	ATCC 25585				≤ 5				
		<i>Parabacteroides</i> (n = 1)	Clinical isolates				40				
		<i>Parvimonas</i> (n = 2)	Clinical isolates	Microdilution method	Mueller Hinton	5 × 10 ⁵	≤ 5	/	/	/	[48]
		<i>Peptostreptococcus</i> (n = 1)	Clinical isolates				≤ 5				
		<i>Peptostreptococcus anaerobius</i>	ATCC 25286				10				
		<i>Porphyromonas</i> (n = 3)	Clinical isolates				≤ 5–20				
		<i>Porphyromonas levii</i>	ATCC 29147				≤ 5				
		<i>Prevotella</i> (n = 5)	Clinical isolates				20 - ≥ 100				
		<i>Prevotella loescheii</i>	ATCC 15930				20				
		<i>Propionibacterium</i> (n = 2)	Clinical isolates				10–80				
		<i>Tannerella</i> (n = 1)	Clinical isolates				40				
		<i>S. aureus</i>	ATCC 25923				2.5				
		<i>S. aureus</i>	ATCC 6538				5.0				
		<i>S. aureus</i>	ATTC 6538P				10.0				
		<i>S. epidermidis</i>	ATCC 14990				0.625				
		<i>S. mutans</i>	ATCC 29175				10				

N/A: not available; ATCC: American Type Culture Collection; TEM: transmission electron microscope; PEG: polyethylene glycol.

Stabilizer	NPs size (nm)	Bacteria	Bacteria origin	Protocol	Culture media	CFU/mL	MIC (µg/mL)	MBC (µg/mL)	Disk loading	ZOI (mm)	Reference	
“Naked”	11.2 ± 2.1 (TEM)	<i>Actinomyces</i> (n = 1)	Clinical isolates	Plate dilution method	Brucella agar supplemented	5 × 10 ⁵	≤ 5	/	/	/	[48]	
		<i>Bacteroides</i> (n = 4)	Clinical isolates				40 - ≥ 100					
		<i>Bacteroides fragilis</i>	ATCC 25285				≥ 100					
		<i>Bifidobacterium</i> (n = 1)	Clinical isolates				≤ 5					
		<i>Bifidobacterium breve</i>	ATCC 15700				≤ 5					
		<i>Finegoldia</i> (n = 2)	Clinical isolates				5–10					
		<i>Fusobacterium</i> (n = 4)	Clinical isolates				≤ 5–20					
		<i>Fusobacterium nucleatum</i>	ATCC 25585				≥ 100					
		<i>Parabacteroides</i> (n = 1)	Clinical isolates				≤ 5					
		<i>Parvimonas</i> (n = 2)	Clinical isolates				≤ 5					
		<i>Peptostreptococcus</i> (n = 1)	Clinical isolates	≤ 5								
		<i>Peptostreptococcus anaerobius</i>	ATCC 25286	≤ 5								
		Microdilution method	<i>Porphyromonas</i> (n = 3)	Clinical isolates	≤ 5–10							
			<i>Porphyromonas levii</i>	ATCC 29147	≥ 100							
			<i>Prevotella</i> (n = 5)	Clinical isolates	≤ 5–40							
			<i>Prevotella loescheii</i>	ATCC 15930	≤ 5							
			<i>Propionibacterium</i> (n = 2)	Clinical isolates	≤ 5–10							
			<i>Tannerella</i> (n = 1)	Clinical isolates	10							
			<i>S. aureus</i>	ATCC 25923	2.5							
			<i>S. aureus</i>	ATCC 6538	2.5							
			<i>S. aureus</i>	ATTC 6538P	10.0							
			<i>S. epidermidis</i>	ATCC 14990	0.3125							
			<i>S. mutans</i>	ATCC 29175	10							
Citrate	15 ± 4		<i>E. coli</i> (K-12)	ATCC 10798	Microdilution method	Mueller Hinton	1 × 10 ⁹	/	1.7 × 10 ³	/	/	[49]
HH	13 ± 2		<i>E. coli</i>	ER2566					165.0 × 10 ³			
		<i>E. coli</i> (K-12)	ATCC 10798	18.1 × 10 ³								
SHSH	13 ± 4	<i>E. coli</i>	ER2566	166.0 × 10 ³								
		<i>E. coli</i> (K-12)	ATCC 10798	5.2 × 10 ³								
SHST	10 ± 6 (TEM)	<i>E. coli</i>	ER2566	10.3 × 10 ³								
		<i>E. coli</i> (K-12)	ATCC 10798	2.6 × 10 ³								
		<i>E. coli</i>	ER2566	55.0 × 10 ³								
Starch	8 ± 4 (TEM)	<i>S. aureus</i>	N/A	Kirby-Bauer method	Nutrient agar	10 ⁵	/	/	1 × 10 ⁻⁷ mol	11 9	[50]	
AOT	20	<i>E. coli</i>	N/A	Microdilution method	Luria Bertani	10 ⁸	512	1024	/	/	[51]	
	<i>S. aureus</i>	256					512					
	50	<i>E. coli</i>					1024	1024				
		<i>S. aureus</i>					512	2048				

N/A: not available; ATCC: American Type Culture Collection; TEM: transmission electron microscope; HH: Hydroxylamine hypochlorite; SHSH: Sodium hypophosphite and sodium hexametaphosphate; SHST: Sodium hypophosphite, sodium hexametaphosphate and sodium tripolyphosphate; AOT: Bis(2-ethylhexyl) sulfosuccinate.

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