

## Supplementary file (MAHUQ-52)

### **Biosynthesis, Characterization and Antibacterial Application of Novel Silver Nanoparticles against Drug Resistant Pathogenic *Klebsiella pneumoniae* and *Salmonella* Enteritidis.**

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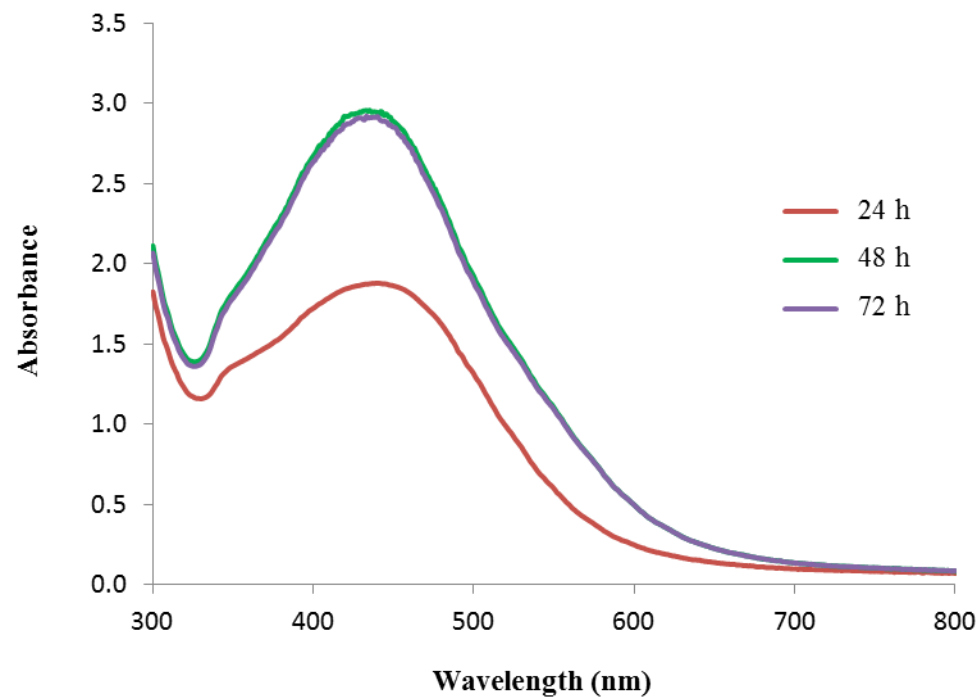
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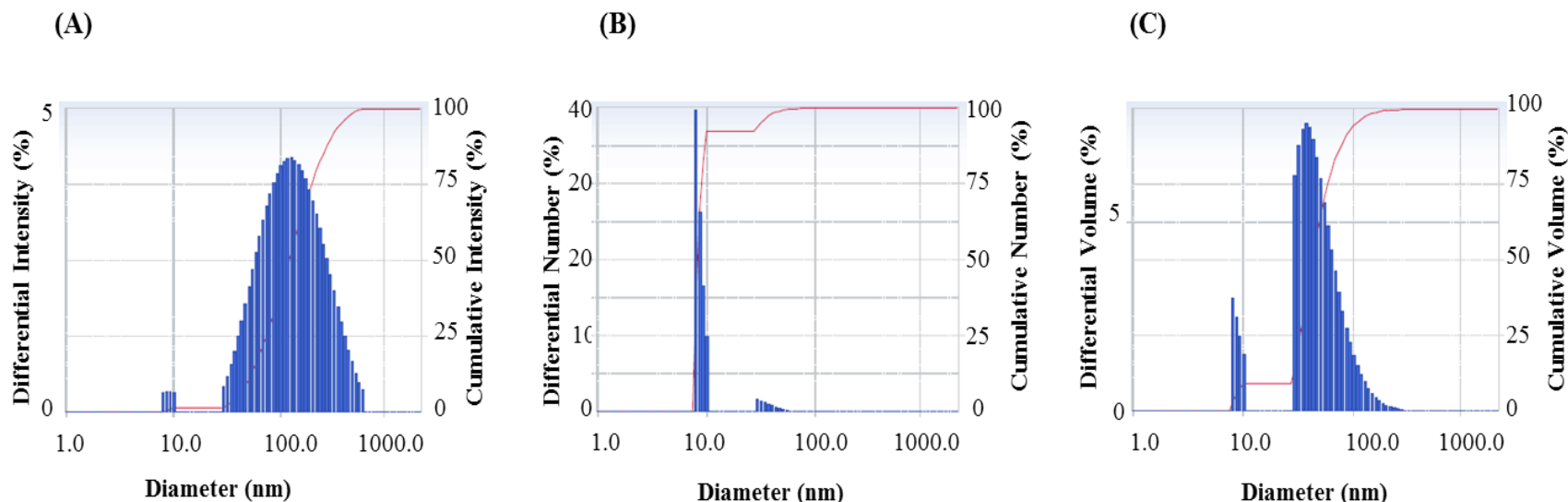
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**Supplementary Figure S1.** Effect of incubation time on the green synthesis of AgNPs using *Massilia* sp. MAHUQ-52 was checked on the basis of UV-vis spectral analysis after 24 h, 48 h and 72 h of incubation at 30 °C with 1 mM concentration of AgNO<sub>3</sub>.



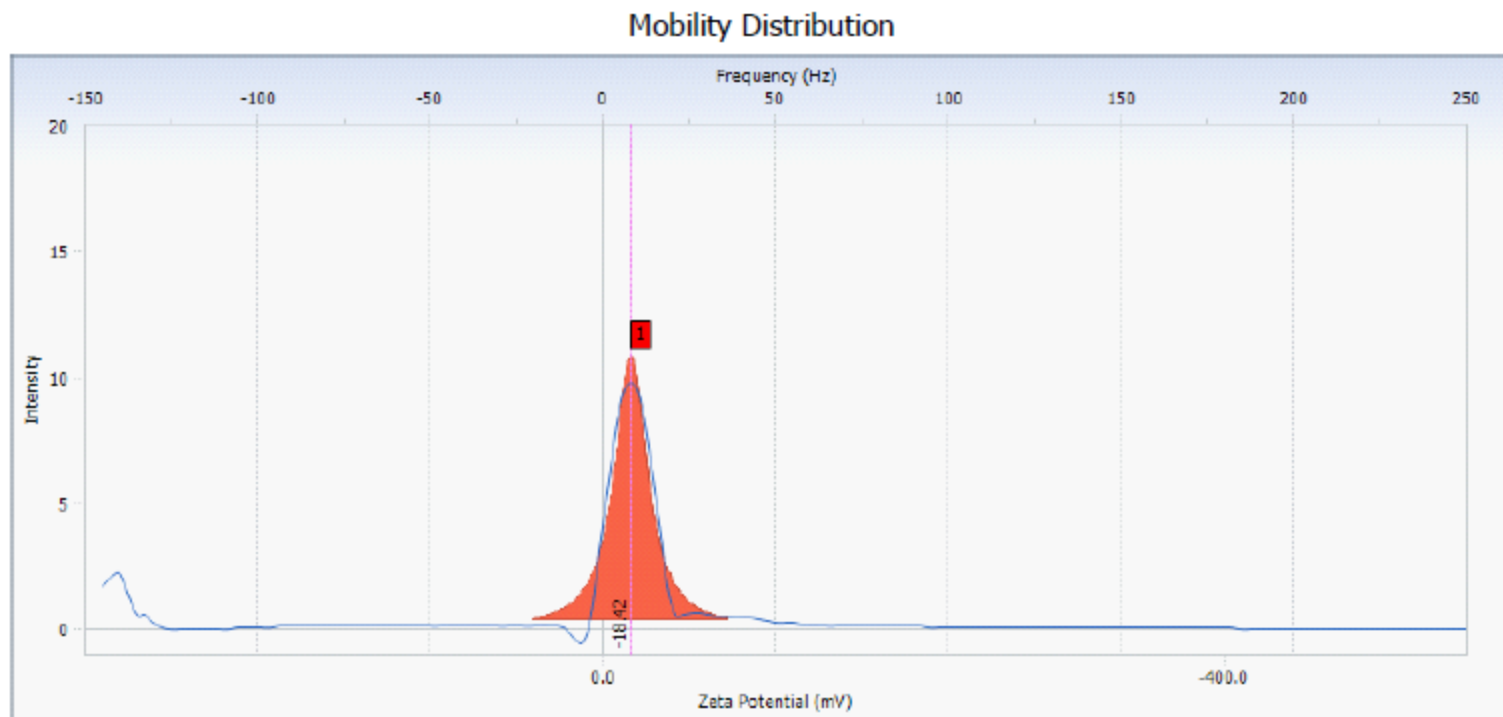
**Supplementary Figure S2.** Particles size distribution of *Massilia sp.* MAHUQ-52 mediated synthesized AgNPs according to intensity (A), number (B) and volume (C).

### Measurement Results

Cumulants Results				Measurement Condition		
Diameter	(d)	: 109.3	(nm)	Temperature	: 25.0	(°C)
Polydispersity Index (P.I.)		: 0.294		Diluent Name	: WATER	
Diffusion Const.	(D)	: 4.499e-008	(cm <sup>2</sup> /sec)	Refractive Index	: 1.3328	
Residual		: 2.866e-003	(O.K)	Viscosity	: 0.8878	(cP)
				Scattering Intensity	: 25866	(cps)
				Attenuator 1	: 1.95	(%)

#### Distribution Results (Contin)

Intensity Distribution			Volume Distribution			Number Distribution		
Peak	Diameter (nm)	Std. Dev.	Peak	Diameter (nm)	Std. Dev.	Peak	Diameter (nm)	Std. Dev.
1	9.2	0.8	1	9.0	0.8	1	8.8	0.7
2	166.4	114.4	2	57.8	31.8	2	40.0	11.4
3	0.0	0.0	3	0.0	0.0	3	0.0	0.0
4	0.0	0.0	4	0.0	0.0	4	0.0	0.0
5	0.0	0.0	5	0.0	0.0	5	0.0	0.0
Average	164.3	115.0	Average	53.4	33.3	Average	11.2	9.0



**Supplementary Figure S3.** Zeta potential distribution showed the negative zeta potential value.

### Measurement Results

Zeta Potential	: -18.42	(mV)	Doppler shift	: 8.30	(Hz)
Mobility	: -1.436e-004	(cm²/Vs)	Base Frequency	: 126.5	(Hz)
Conductivity	: 0.0691	(mS/cm)	Conversion Equation	: Smoluchowski	
Zeta Potential of Cell			Diluent Properties		
Upper Surface	: -80.08	(mV)	Diluent Name	: WATER	
Lower Surface	: -33.85	(mV)	Temperature	: 25.0	(°C)
Cell Condition			Refractive Index	: 1.3328	
Cell Type	: Zeta Cell (Dispo)		Viscosity	: 0.8878	(cP)
Avg. Electric Field	: -12.02	(V/cm)	Dielectric Constant	: 78.3	
Avg. Current	: -0.04	(mA)			