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Supporting Information

A silver-based metal–organic framework material as a 'reservoir' of bactericidal metal ions.

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Summary

SI1- Antibiotic resistance profiles of the bacterial strains.

Table SI1. Antibiotic resistance profile[a] of the bacterial strains herein studied.

Gram positive strains[b]	Antibiotic[c]																		
	Oxa	Amo	Clav	Gent	Net	Tob	Ami	Kan	Dox	Ery	Lin	Pri	Pef	Cot	Fus	Tei	Van	Lin	Mup
SA RN4220	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
SA N315	**R**	**R**	**R**	S	S	**R**	**R**	**R**	S	**R**	**R**	S	S	S	S	S	S	S	S
SA Newman	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S

Gram negative strains[b]	Antibiotic[c]																		
	Tic	Clav	Pip	Taz	Aza	Ceft	Cefs	Cefo	Imi	Gen	Tob	Net	Ami	Lev	Cif	Fos	Cot	Col	Tem
EC MG1655	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
PA 130709	S	S	S	S	S	S	**R**	S	**R**	L	S	**R**	L	nd	S	**R**	**R**	**R**	**R**
PA 240709	**R**	**R**	**R**	**R**	**R**	**R**	**R**	**R**	S	**R**	**R**	**R**	**R**	nd	S	**R**	**R**	S	nd

a. as determined with the antibiogram reference method.

b. SA, *S. aureus*; EC, *E. coli*; PA, *P. aeruginosa*.

c. Abbreviations: Ami, amikacin; Amo, amoxicilline; Aza, aztreonam; Cefo, cefoperazon; Cefs, cefsulodin; Ceft, ceftazidim; Cif, ciprofloxacin; Clav, amoxicilline+clavulinic acid; Col, colistin; Cot, cotrimoxazole; Dox, doxicillin; Ery, erythromycin; Fos, fosfomycin; Fus, fusidic acid; Gent, gentamicin; Imi, imipenem; Kan, kanamycin; Lev, levofloxacin; Lin, lincomycin; Lin, lincomycin; Mup, mupirocin.; Net, netilmicin; Pef, pefloxacin; Pip, piperacillin; Pri, pristinamycin; Taz, piperacillin+tazobactam; Tei, teicoplanine; Tem, temocillin.; Tob, tobramycin; Van, vancomycin; Oxa, oxacilline; Tic, ticarcilline. R, resistant; L, limit; S, sensitive; nd, not determined.

SI2- Evaluation of the toxicity

Hemolysis assays. Human whole blood samples were collected in Heparin/EDTA and chilled at 4°C. These samples were centrifuged at 1000g for 5 min at 4°C and the resulting pellets were washed three times with 1X Phosphate Buffer Saline (PBS). Cells were finally suspended in 1XPBS and chilled at 4°C. Serial dilutions of test compounds were prepared in 1XPBS (50 µL each) and combined with 150 µL of red cells (200 µL final, 3.75% of cells per test). After an incubation of 1 h at 37°C, samples were centrifuged for 10 min at 1000g and 100 µL of each supernatant was transferred in a 96 well plate. Optical densities were evaluated at 540 nm. A volume of 1XPBS was used negative control (0% hemolysis) whereas 1% Triton X-100 was used to calculate the maximal hemolysis value (complete cell lysis).

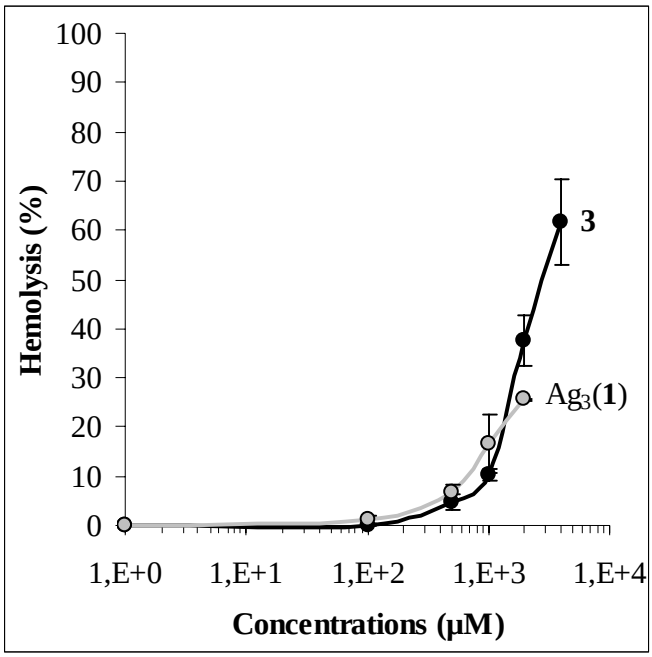

Figure SI2. Hemolysis assays for the evaluation of the cytotoxicity of Ag_3(**1**). Compound **3** was evaluated in same conditions and used as a reference. (mean +/- SD, with n=3).

SI3- LB agar plates: composition and preparation.

Luria Bertani is a complex nutritive media containing (for a 1 liter solution) 10 g bacto-tryptone, 5 g yeast extract and 10 g NaCl (qsp 1 L dH_2O). Its pH was adjusted to 7.5 with NaOH. It was supplemented with 15 g agar, melted into solution by warming then sterilized by autoclaving. Distributing in 10 cm petri dishes and cooling allowed obtaining solid nutritive non-selective plates.