Supplementary data

Table S1. Primers used for PCR amplification and cloning of carbapenemase genes.

Primer	5’ – 3’ sequence
NDM-1 EcoRV F	GAT GAT GAT ATC TCA GCG CTG GCT GTT TTA CG
NDM-1 Bam R	GAT GAT GGA TCC AAT CGC GCG ATG GCA GAT TG
VIM-2 EcoRV F	GAT GAT GAT ATC AAA GTT ATG CCG CAC TCA CC
VIM-2 Bam R	GAT GAT GGA TCC GCA TCT GCC TGC TAC TCA AC
IMP-1 EcoRV F	GAT GAT GAT ATC AAA CGG ATG AAG GCA CGA AC
IMP-1 Bam R	GAT GAT GGA TCC TAG TTG CTT GGT TTT GAT GG
OXA-48 EcorI F	GAT GAT GAA TTC GAC GAG CAC AAT CGG CAT AG
OXA-48 ScaI R	GAT GAT AGT ACT CGC TAA CCA CTT CTA GGG AA
KPC-3 F EcorI	GAA TTC AAT TCC GCC ATC GTC AGT GCT CTA C
KPC-3 R EcorI	GAA TTC AAT TCA AGG GCG GCT GAA GGA ATA C

Table S2. MICs of imipenem, meropenem and ertapenem against susceptible strain *E. coli* CFT073 and isogenic derivatives expressing NDM-1, VIM-2, IMP-1, OXA-48 or KPC-3, with increasing concentrations of DMSA.

Strains	Imipenem S ≤ 2 R > 4 mg/L					Meropenem S ≤ 2 R > 8 mg/L					Ertapenem S ≤ 0.5 R > 0.5 mg/L				
	DMSA 0	DMSA 0.3 mM	DMSA 1.5 mM	DMSA 3 mM	DMSA 6 mM	DMSA 0	DMSA 0.3 mM	DMSA 1.5 mM	DMSA 3 mM	DMSA 6 mM	DMSA 0	DMSA 0.3 mM	DMSA 1.5 mM	DMSA 3 mM	DMSA 6 mM
CFT073	0.125	0.25	0.25	0.25	0.25	0.015	0.03	0.03	0.03	0.03	0.00375	0.015	0.0075	0.0075	0.015
CFT073-NDM-1	64	64	16	8	2	128	64	64	16	1	64	64	64	32	2
CFT073-VIM-2	8	4	4	2	2	4	4	2	0.5	0.125	4	2	1	0.5	0.06
CFT073-IMP-1	8	2	1	0.5	0.5	16	1	0.125	0.06	0.06	16	1	0.06	0.03	0.015
CFT073-OXA-48	1	2	2	2	2	0.125	0.25	0.25	0.25	0.25	0.125	0.25	0.25	0.25	0.25

CFT073-KPC-3	8	8	8	8	8	8	16	16	16	16	16	16	16	16	16

Table S3. Peak concentrations of DMSA obtained in plasma 30 min after a single dose in healthy adult human and in Swiss mice.

Species	**DMSA dosing**	**Mean concentration (µM) (+/- SD)**
Human (healthy adults)*	10 mg/kg (oral)	43 +/- 14 (n=6)
Mice (Swiss female)	100 mg/kg (intra-peritoneal)	6 +/- 4 (n=3)
Mice (Swiss female)	200 mg/kg (intra-peritoneal)	50 +/- 27 (n=3)
Mice (Swiss female)	400 mg/kg (intra-peritoneal)	182 +/- 21 (n=3)

*: data in human are from reference 37

** DMSA alone was not toxic in uninfected mice at dosages of 200 mg/kg q 4h and 400 mg/kg q 4h for 24h. No death or any abnormal symptom occurred for both dosing regimens after 24 h of treatment.