



Communication

Exploring the Contribution of the AcrB Homolog MdtF to Drug Resistance and Dye Efflux in a Multidrug Resistant *E. coli* Isolate

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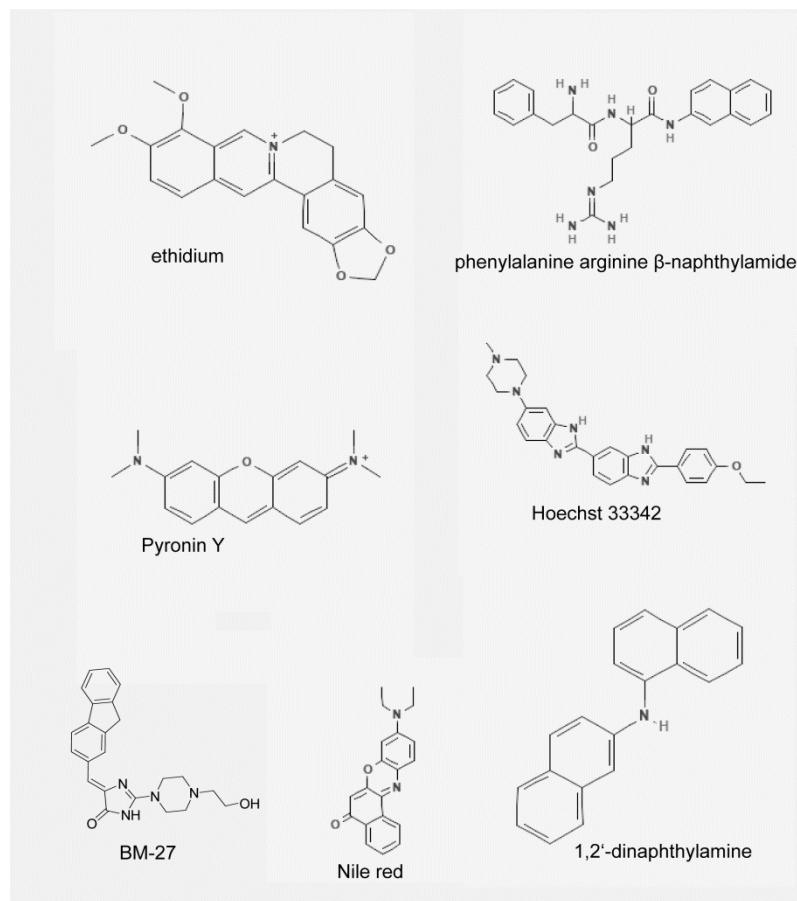


Figure 1. Dyes used in the study of the KUNΔacrB/mdtF mutant. Phenylalanine arginine β -naphthylamide was cleaved to the fluorescent dye naphthylamine within the bacterial cell. Structures were from Pubchem (<https://pubchem.ncbi.nlm.nih.gov/compound/>) [1] except the structure of the piperazine arylideneimidazolone BM-27 [2] that was provided from Jadwiga Handzlik (Department of Technology and Biotechnology of Drugs, Jagiellonian University Medical College, Faculty of Pharmacy, Kraków, Poland).

Table S1. Further drug susceptibilities of the MDR *E. coli* isolate KUN9180 and derived knockout mutants.

<i>E. coli</i> strain/mutant	MIC in $\mu\text{g/mL}$ ¹							
	LVX	MXV	GEP	TET	CHL	LZD	CLI	RIX
KUN9180	32	16	2	64	4	256	64	16
KUN Δ acrB	4	2	0.06	16	1	16	8	4
KUN Δ acrB Δ mdtF	4	2	nd	16	1	16	8	4
KUN Δ tolC	4	2	0.03	16	1	16	8	4

¹ MIC, minimal inhibitory concentration (the median of ≥ 7 independent assays is shown); nd, not determined; LVX, levofloxacin; MXV, moxifloxacin; GEP, gepotidacin; TET, tetracycline; CHL, chloramphenicol; LZD, linezolid; RIX, rifaximin.

References

1. Kim, S.; Chen, J.; Cheng, T.; Gindulyte, A.; He, J.; He, S.; Li, Q.; Shoemaker, B. A.; Thiessen, P. A.; Yu, B.; Zaslavsky, L.; Zhang, J.; Bolton, E. E. PubChem in 2021: new data content and improved web interfaces. *Nucleic Acids Res* **2021**, *49*, D1388-D1395. 5957164 [pii];10.1093/nar/gkaa971 [doi].
2. Bohnert, J. A.; Schuster, S.; Kern, W. V.; Karcz, T.; Olejarz, A.; Kaczor, A.; Handzlik, J.; Kiec-Kononowicz, K. Novel piperazine arylideneimidazolones inhibit the AcrAB-TolC Pump in *Escherichia coli* and simultaneously act as fluorescent membrane probes in a combined real-time influx and efflux assay. *Antimicrob Agents Chemother* **2016**, *60*, 1974-1983. AAC.01995-15 [pii];10.1128/AAC.01995-15 [doi].