

**Table S1. Strains and plasmids used in this study.**

Strain or plasmid	Genotype and relevant characteristics	Reference or source
<b>Strains</b>		
<i>Xenorhabdus nematophila</i>		
K102 (CNCMI-4530)	Wild type isolated from <i>Steinernema carpocapsae</i> nematode	Laboratory collection
AN6 WT	Wild type isolated from <i>Steinernema carpocapsae</i> nematode	(1)
$\Delta xcnKL::F$	AN6/1 $\Delta xcnKL::Km^R$ XNC1_2467:: $Cm^R$ named also $\Delta xcnKL::odl1$	(1)
F1	Wild type isolated from <i>Steinernema carpocapsae</i> nematode Plougastel (Brittany)	Laboratory collection
$\Delta ngrA$	F1 $ngrA::\Omega Cm$	This study
$\Delta ngrA \Delta oatA$	F1 $ngrA::\Omega Cm$ $oatA::Km$	This study
<i>Escherichia coli</i>		
GB05-dir	<i>E. coli</i> DH10B derived strain containing the arabinose inducible ET $\gamma$ A operon (full length <i>recE</i> , <i>recT</i> , <i>red<math>\gamma</math></i> and <i>recA</i> ) inserted at the <i>ybcC</i> locus allowing LLHR	Gene Bridges GmbH
GB08-dir	<i>E. coli</i> DH10B derived strain containing the arabinose inducible $\gamma\beta\alpha$ A operon (full length <i>red<math>\gamma</math></i> , <i>red<math>\beta</math></i> , <i>red<math>\alpha</math></i> and <i>recA</i> ) inserted at the <i>ybcC</i> locus allowing LCHR	Gene Bridges GmbH
XL1-Blue MRF'	$\Delta(mcrA)183 \Delta(mcrCB-hsdSMR-mrr)173 endA1 supE44 thi-1 recA1 gyrA96 relA1 lac$ [F' <i>proAB lacIqZ</i> $\Delta$ M15 Tn10 (Tetr)]	Stratagene
WM3064	<i>thrB1004 pro thi rpsI hsdS lacZ</i> $\Delta$ M15 RP4-1360 $\Delta(araBAD)567 \Delta dapA134I::[erm pir (wt)]$ donor strain	(2)
BL21(DE3)	F <sup>-</sup> <i>ompT hsdSB (rB- mB-) gal dcm lon <math>\lambda</math></i> (DE3 [ <i>lacI lacUV5-T7 gene 1 indI sam7 nin5</i> ])	Laboratory collection
<b>Plasmids</b>		
p15A-Cm	p15A origin 2kb plasmid $Cm^R$	(3)
p15A- <i>odl</i> -BGC	<i>X. nematophila</i> odilorhabdin locus red/ET cloned into p15A-Cm	This study
pSC101-tetR-tetO-eGFP-Km	pSC101 vector containing $Km^R$ - <i>Tet<sup>R</sup></i> - P <sub>LtetO-1</sub>	(3)
p15A-P <sub>tet</sub> - <i>odl</i> -BGC	$Km^R$ - <i>Tet<sup>R</sup></i> - P <sub>LtetO-1</sub> from pSC101-tetR-tetO-eGFP-km red/ET cloned into p15A- <i>odl</i> -BGC	This study
pACYC184	p15A origin plasmid	Laboratory collection
pBBR1-MCS5	Broad host range vector $Gm^R$ , mob	(4)
p15A-P <sub>tet</sub> - <i>odl</i> -BGC-mob	$Gm^R$ -mob fragment from pBBR1-MCS5 red/ET cloned into p15A-P <sub>tet</sub> - <i>odl</i> -BGC	This study
pJQ200SK	$Gm^r$ <i>sacRB</i> mob oriV (p15A replicon) suicide plasmid	S. Forst
pJQ- <i>ngrA</i> :: $\Omega Cm$	pJQ suicide plasmid carrying the $\Omega$ Cam interposon cloned between the two regions upstream and downstream of the <i>ngrA</i> gene	This study
pBBR1-MCS2	Broad host range vector $Km^R$ , mob	(4)
pBB- <i>ngrA</i>	<i>X. nematophila ngrA</i> gene PCR fragment cloned into pBBR1-MCS2	This study
pJQ-KmT1	pJQ200SK carrying a kanamycin resistance cassette and T1 terminator region from pPROBE-AAV	(5)
pJQ- <i>oatA</i> ::KmT1	pJQ suicide plasmid carrying a kanamycin resistance cassette and T1 terminator region from pPROBE- <i>gfp</i> [AAV] cloned between the two regions upstream and downstream of the <i>X. nematophila oatA</i> gene	This study
pET-28a	pBr322 origin, T7 promoter, $Kan^R$	Novagen
pET- <i>oatA</i>	pET-28a with <i>oatA</i> (His-tag) in N-term under the control of T7 promoter, $Kan^R$	This study
pUC19	Ap <sup>R</sup> cloning vector	Biolabs
P <sub>lac</sub> - <i>defghij</i>	Seven downstream genes from <i>odl</i> -BGC-locus cloned into pUC19	This study
P <sub>lac</sub> - <i>abc</i>	Three upstream genes from <i>odl</i> -BGC-locus cloned into pUC19	This study
P <sub>lac</sub> - <i>a</i>	<i>ectB</i> gene (=a gene) cloned into pUC19	This study
P <sub>lac</sub> - <i>b</i>	<i>b</i> gene cloned into pUC19	This study
P <sub>lac</sub> - <i>oatA</i> -Xn	odilorhabdin acetyltransferase gene (=c gene) from <i>X. nematophila</i> cloned into pUC19	This study

LLHR (linear plus linear homologous recombination)

LCHR (linear plus circular homologous recombination)

## References:

1. Singh S, Orr D, Divinagracia E, McGraw J, Dorff K, Forst S. 2015. Role of Secondary Metabolites in Establishment of the Mutualistic Partnership between *Xenorhabdus nematophila* and the Entomopathogenic Nematode *Steinernema carpocapsae*. *Appl Environ Microbiol* 81:754–764.
2. Paulick A, Koerdt A, Lassak J, Huntley S, Wilms I, Narberhaus F, Thormann KM. 2009. Two different stator systems drive a single polar flagellum in *Shewanella oneidensis* MR-1. *Molecular Microbiology* 71:836–850.
3. Fu J, Bian X, Hu S, Wang H, Huang F, Seibert PM, Plaza A, Xia L, Müller R, Stewart AF, Zhang Y. 2012. Full-length RecE enhances linear-linear homologous recombination and facilitates direct cloning for bioprospecting. *Nature Biotechnology* 30:440–446.
4. Kovach ME, Elzer PH, Steven Hill D, Robertson GT, Farris MA, Roop RM, Peterson KM. 1995. Four new derivatives of the broad-host-range cloning vector pBBR1MCS, carrying different antibiotic-resistance cassettes. *Gene* 166:175–176.
5. Hadchity L, Lanois A, Kiwan P, Nassar F, Givaudan A, Abi Khattar Z. 2021. AcrAB, the major RND-type efflux pump of *Photorhabdus laumondii*, confers intrinsic multidrug-resistance and contributes to virulence in insects. *Environmental Microbiology Reports* 13:637–648.