S1 Table. Primer sequences and PCR templates used for the construction of the plasmids used in this study.

Plasmid	Primers	Sequence (5'→3')[2]	PCR template[1]	Additional information[3]
palk-ksa14m	PCK0017_for	ATTTAATAAAAATT**GGAGAA**TTCCATATGG CAATTAAAGAAATGCCTC	*ksa14m* gene synthesis product	insertion of *ksa14m* PCR product into pCOM10 (cut with NdeI and HindIII)
	PCK0018_rev	ATCTTCTCTCATCCGCCAAAACAGAAGCTT CGATCGTTACCCAGCCCACACGTC		
palk-ksa14m-alkL	PCK0019_for	AAAGACGTGTGGGCTGGGTAACGATCG**TA ACTTTAAGAAGGAGATATACC**TACTAGAT GAGTTTTTCTAATTATAAAGTAATCG	pCW3A4LS (derived from pLAFR3-AlkL (Cornelissen *et al.*, 2013))	insertion of *alkL* PCR product into palk-ksa14m (cut with PvuI)
	PCK0020_rev	CATCCGCCAAAACAGAAGCTTCGATCGTTA GAAAACATATGACGCACC		
plac-ksa14m	PCK0013_for	TAGGAACCAGTACT**GGAGAA**TTCCATATG GCAATTAAAGAAATGCCTC	*ksa14m* gene synthesis product	insertion of *ksa14m* PCR product into pCOM10_1A1_lac (cut with NdeI and HindIII)
	PCK0014_rev	ATCTTCTCTCATCCGCCAAAACAGAAGCTT ACTAGTTTACCCAGCCCACACGTC		
plac-ksa14m-alkL	PCK0015_for	GCAAAAGACGTGTGGGCTGGGTAAACTAG T**TAACTTTAAGAAGGAGATATACC**TACTA GATGAGTTTTTCTAATTATAAAGTAATCG	pCW3A4LS (derived from pLAFR3-AlkL (Cornelissen *et al.*, 2013))	insertion of *alkL* PCR product into plac-ksa14m (cut with BcuI)
	PCK0016_rev	TCTCATCCGCCAAAACAGAAGCTTACTAGT TTAGAAAACATATGACGCACC		
ptac-ksa14m	PCK0021_for	TGACCAACAGTACT**GGAGAA**TTCCATATG GCAATTAAAGAAATGCCTC	*ksa14m* gene synthesis product	insertion of *ksa14m* PCR product into pCOM10_tac (cut with NdeI and HindIII)
	PCK0018_rev	ATCTTCTCTCATCCGCCAAAACAGAAGCTT CGATCGTTACCCAGCCCACACGTC		
ptac-ksa14m-alkL	PCK0019_for	AAAGACGTGTGGGCTGGGTAACGATCG**TA ACTTTAAGAAGGAGATATACC**TACTAGAT GAGTTTTTCTAATTATAAAGTAATCG	pCW3A4LS (derived from pLAFR3-AlkL (Cornelissen *et al.*, 2013))	insertion of *alkL* PCR product into ptac-ksa14m (cut with PvuI)
	PCK0020_rev	CATCCGCCAAAACAGAAGCTTCGATCGTTA GAAAACATATGACGCACC		
plac-ksa14m-fhuAΔ1-160	PCK0082_for	GCAAAAGACGTGTGGGCTGGGTAAACTAG T**TAACTTTAAGAAGGAGATATACC**TACTA GATGGCGCGTTCCAAAAC	pETM11_KSA14m_fhuAΔ1-160 (Bertelmann *et al.*, 2022)	insertion of *fhuAΔ1-160* PCR product into plac-ksa14m-alkL (cut with BcuI)
	PCK0083_rev	TCTCATCCGCCAAAACAGAAGCTTACTAGT TTAGAAACGGAAGGTTGC		
plac-ksa14m-todX	PCK0084_for	GCAAAAGACGTGTGGGCTGGGTAAACTAG T**TAACTTTAAGAAGGAGATATACC**TACTA GATGAAGATTGCCAGCGTG	pETM11_KSA14m_todX (Bertelmann *et al.*, 2022)	insertion of *todX* PCR product into plac-ksa14m-alkL (cut with BcuI)
	PCK0085_rev	TCTCATCCGCCAAAACAGAAGCTTACTAGT TTAAAAATTTTTGCTATAGGAAACC		
pET154	PCK0075_for	ATTGTGAGCGGATAACAATTCCCCTCTAGA AATAATTTTGTT**TAAC**	*cyp154c5* gene synthesis product	insertion of *cyp154c5* PCR product into pETM11 (cut with XbaI and NotI)
	PCK0076_rev	GGTGGTGGTGGTGGTGCTCGAGTGCGGC CGCTTAAAGCTTGTCGACGG		
pET154-camAB	PCK0027_for (camA)	TGGGGCGCTAAGAGCTCCGTCGACAAGCT T**TAACTTTAAGAAGGAGATATACC**ATGAA CGCAAACGACAACGTGGTC	genomic DNA of *Pseudomonas putida* DSM50198 (DSMZ – German Collection of Microorganisms and Cell Cultures GmbH)	simultaneous insertion of *camA* and *camB* PCR products into pET154 (cut with HindIII)
	PCK0028_rev (camA)	CTCCTTCTTAAAGTTACTCTAGTAGGATCC CTCTAGTATTAGGCACTACTCAGTTCAGCT TTG		
	PCK0029_for (camB)	CTACTAGAG**TAACTTTAAGAAGGAGATAT ACC**ATGTCTAAAGTAGTGTATGTGTCAC		
	PCK34_rev (camB)	GGTGCTCGAGTGCGGCCGCAAGCTAAGCT TTTACCATTGCCTATCGGGAAC		
pET154-camAB-alkL	PCK0035_for	AGGCAATGGTAAAAGCTTAGCTTGCGGCC GC**TAACTTTAAGAAGGAGATATACC**ATGA GTTTTTCTAATTATAAAGTAATCG	pCW3A4LS (derived from pLAFR3-AlkL (Cornelissen *et al.*, 2013))	insertion of *alkL* PCR product into pET154-camAB (cut with NotI)
	PCK0036_rev	GGTGGTGGTGGTGGTGCTCGAGTGCGGC CGCTTAGAAAACATATGACGCACC		

pET154A	PCK0078_for PCK0079_rev	AGAGCTCCGTCGACAAGCTTTAAGCGGCC GC**TAACTTTAAGAAGGAGATATACC**ATGA GTTTTTCTAATTATAAAGTAATC GGTGGTGGTGGTGGTGCTCGAGTGCGGC CGCTTAGAAAACATATGACGCACC	pCW3A4LS (derived from pLAFR3-AlkL (Cornelissen *et al.*, 2013))	insertion of *alkL* PCR product into pET154
pET106	PCK0075_for PCK0077_rev	ATTGTGAGCGGATAACAATTCCCCTCTAGA AATAATTTTGTT**TAAC** GGTGGTGGTGGTGGTGCTCGAGTGCGGC CGCTTAAAGCTTGTCGACGGAG	*cyp106a2* gene synthesis product	insertion of *cyp106a2* PCR product into pETM11
pET106A	PCK0078_for PCK0079_rev	AGAGCTCCGTCGACAAGCTTTAAGCGGCC GC**TAACTTTAAGAAGGAGATATACC**ATGA GTTTTTCTAATTATAAAGTAATC GGTGGTGGTGGTGGTGCTCGAGTGCGGC CGCTTAGAAAACATATGACGCACC	pCW3A4LS (derived from pLAFR3-AlkL (Cornelissen *et al.*, 2013))	insertion of *alkL* PCR product into pET106
ptac154	PCK0063_for PCK0064_rev	AGTCCGTTTAGGTGTTTTCACGAGCAATTG CCTCTAGAAATAATTTTGTT**TAAC** TGGCTGCAGGTCGACGGATCCCGGGCGC GCCTTAAAGCTTGTCGACGG	*cyp154c5* gene synthesis product	insertion of *cyp154c5* PCR product in pCOM10_tac (cut with MunI and SgsI)
ptac154A	PCK0065_for PCK0066_rev	AGAGCTCCGTCGACAAGCTTTAAGGCGCG CC**TAACTTTAAGAAGGAGATATACC**ATGA GTTTTTCTAATTATAAAGTAATC ACAGAAGCTTGGCTGCAGGTCGACGGATC CTTAGAAAACATATGACGCACC	pCW3A4LS (derived from pLAFR3-AlkL (Cornelissen *et al.*, 2013))	insertion of *alkL* PCR product in ptac154 (cut with SgsI and BamHI)
ptac106	PCK0067_for PCK0068_rev	AGTCCGTTTAGGTGTTTTCACGAGCAATTG CCTCTAGAAA**TAATTTTGTTTAACTTTAAG AAGGAGATATACC**ATGAAGGAGGTGATCG CAG TGGCTGCAGGTCGACGGATCCCGGGCGC GCCTTAAAGCTTGTCGACGGAGCTCTTACA TACGACTCGCTTTCAG	*cyp106a2* gene synthesis product	insertion of *cyp106a2* PCR product in pCOM10_tac (cut with MunI and SgsI)
ptac106A	PCK0065_for PCK0066_rev	AGAGCTCCGTCGACAAGCTTTAAGGCGCG CC**TAACTTTAAGAAGGAGATATACC**ATGA GTTTTTCTAATTATAAAGTAATC ACAGAAGCTTGGCTGCAGGTCGACGGATC CTTAGAAAACATATGACGCACC	pCW3A4LS (derived from pLAFR3-AlkL (Cornelissen *et al.*, 2013))	insertion of *alkL* PCR product in ptac106 (cut with SgsI and BamHI)
pACYC-camA	PCK0059_for PCK0060_rev	GTTTAACTTTAAT**AAGGAG**ATATACCCATG AACGCAAACGACAACGTGGTC TGTCGACCTGCAGGCGCGCCGAGCTCTCA GGCACTACTCAGTTCAGCTTTG	genomic DNA of *Pseudomonas putida* DSM50198 (DSMZ – German Collection of Microorganisms and Cell Cultures GmbH)	insertion of *camA* PCR product into pACYC_DuetI (cut with NcoI and SacI)
pACYC-camAB	PCK0061_for PCK0062_rev	GTTAAGTATAAG**AAGGAG**ATATACATATGT CTAAAGTAGTGTATGTGTCAC GCGATCGCGTGGCCGGCCGATATCCAATT GTTACCATTGCCTATCGGGAAC	genomic DNA of *Pseudomonas putida* DSM50198 (DSMZ – German Collection of Microorganisms and Cell Cultures GmbH)	insertion of *camB* PCR product into pACYC-camA (cut with NdeI and MunI)

[1] Genes encoding the respective CYP450s, redox partner proteins, or outer membrane proteins were amplified from various sources using suitable primers.
[2] Primers contained (parts of) ribosomal binding sites (**bold**), restriction sites, and 25 bp overhangs complementary to the plasmid backbone.
[3] The resulting PCR products were inserted into the different vectors by *in vitro assembly* (Gibson *et al.*, 2009). Final plasmid constructs were then introduced into the desired host organism.

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