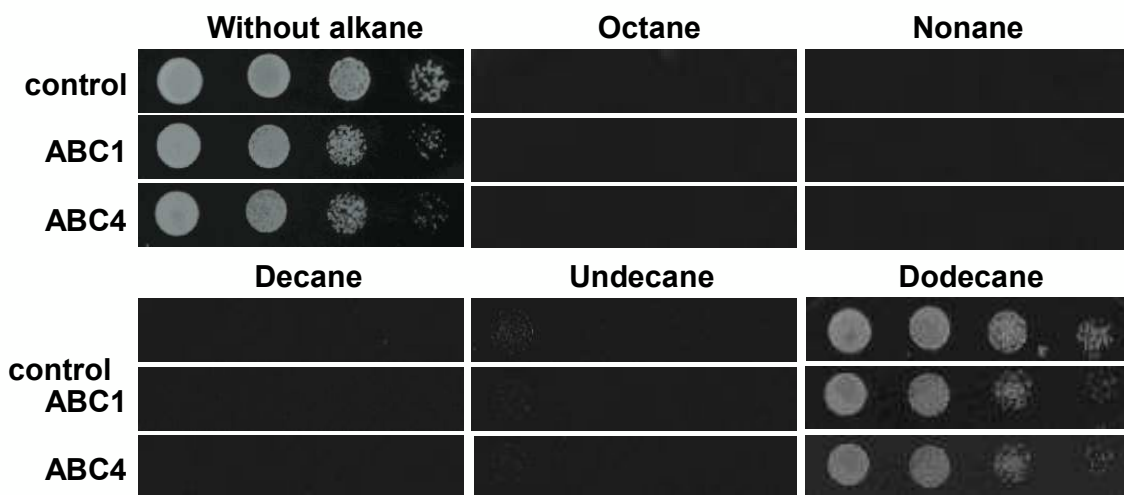


**Table S1. Primers used in this study. Restriction sites are bold.**

Primer name	Primer sequence from 5' to 3'
ABC2-F1	ACCCA <b>AAGCTT</b> TAAAAAATGTCTCAAACACCTCCAGACTACACTGGTCTGG
ABC2-R1	CATCTCGGGGGACAC/CCTGATAATTCCATT
ABC2-F2	AATGGAATTATCAGG/GTGTCCCCCGAGATG
ABC2-R2	ATAAGAAT <b>GCGGCCGC</b> CTAATGGTGATGGTGATGATGAGCCTTCTGAGCCTTGGGA
ABC3-F1	ACGG <b>GGTACC</b> TAAAAAATGTCTGATCCTGTACCGATCACGCAGG
ABC3-R1	GATTTTTCGGGGAATGC/CCTGATAATTCCATTCA
ABC3-F2	TGAATGGAATTATCAGG/GCATCCCCGAAAAATC
ABC3-R2	ACAT <b>GCATGC</b> CTAATGGTGATGGTGATGATGGGCCTTCTGCTTTCGAGACTTTTTG
ABC2-E988Q-R1	GACCGGAAGTAGGTTGATCCAGGAACAGC
ABC2-E988Q-F2	GCTGTTCCCTGGATCAACCTACTTCCGGTC
ABC2-H1020A-R1	GCAGAGGGCTGAGCAATGGTACACAGAATAGC
ABC2-H1020A-F2	GCTATTCTGTGTACCATTGCTCAGCCCTCTGC
ABC3-E989Q-R1	GGAAGTGGGTTGATCAAGGAACAGC
ABC3-E989Q-F2	GCTGTTCCCTTGATCAACCCACTTCC
ABC3-H1021A-R1	GCAGAGGGCTGAGCAATAGTACACAG
ABC3-H1021A-F2	CTGTGTA CTATTGCTCAGCCCTCTGC
ABC2-EGFP-R2	ATAAGAAT <b>GCGGCCGC</b> AGCCTTCTGAGCCTTGGACTTCTTG
ABC3-EGFP-R2	ACAT <b>GCATGCA</b> ACATGGAT <b>GCGGCCGC</b> GGCCTTCTGCTTTCGAGACTTTTTGG
EGFP-F	ATAAGAAT <b>GCGGCCGC</b> GATCGGTGACGGTGCTGGTTAA
EGFP-R	ACAT <b>GCATGC</b> TTAATGGTGATGGTGATGATGTTTGTACAATTCATCCATACCATGG
EGFP-control-F	ATAAGAAT <b>GCGGCCGC</b> TAAAAAATGTCTAAAGGTGAAGAATTATTCAGTGGTGTG
ABC1-qPCR-F	CGACGACAACAGCGTGAGGAACT
ABC1-qPCR-R	CCACTGAGACACGGCGAAATCAGT
ABC2-qPCR-F	CCTGTTGTGTGGGCTGAGTCTCCT
ABC2-qPCR-R	TCGCTCGGTAGTGTTCTGCTGCAC
ABC3-qPCR-F	CGTGGCAGGCTTTCATGGGCT
ABC3-qPCR-R	AAGAGGGCTCCTCGTTCGCCA
ABC4-qPCR-F	GGCCACCAAAGAGCAGATGCCTG
ABC4-qPCR-R	ACGTTACCGGGGCTCGTCCAA
Actin-F	TCCAGGCCGTCTCTCCC
Actin-R	GGCCAGCCATATCGAGTCGCA

**Table S2. Specific growth rates under C10 and C11 alkane treatments**

		$\mu(\text{h}^{-1})$
w/o alkane treatment	empty plasmid	0.189±0.008
	ABC2 expressing	0.173±0.019
	ABC3 expressing	0.164±0.011
with 0.5% C10 treatment	empty plasmid	0
	ABC2 expressing	0.143±0.002
	ABC3 expressing	0.168±0.009
with 20% C11 treatment	empty plasmid	0
	ABC2 expressing	0.204±0.021
	ABC3 expressing	0.178±0.015



**Figure S1. Alkane susceptibility assay on agar plates.** Serial 10-fold dilutions (from left to right: non diluted,  $10^{-1}$ ,  $10^{-2}$ ,  $10^{-3}$ ) of cells were spotted on agar plates with alkanes (octane, nonane, decane, undecane and dodecane) as vapor phase.

**Figure S2. Topology model of ABC2 and ABC3.** To generate a topology model of ABC2 (A) and ABC3 (B), the TMHMMfix algorithm was used ([www.sbc.su.se/melen/TMHMMfix](http://www.sbc.su.se/melen/TMHMMfix)). The resulting model was visualized by the TOPO2 transmembrane protein display software ([www.sacs.ecsf.edu/TOPO2](http://www.sacs.ecsf.edu/TOPO2)). The Walker A motifs are shown in blue, the Walker B motifs are shown in green, and the C-loop are shown in orange. Residues that were mutated in this study are shown in red.

