

Supplementary Information

Understanding of how *Propionibacterium acidipropionici* respond to propionic acid stress at the level of proteomics

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Table S1: Primers used in PCR for recombinant strains construction

	Sense Primer (5'-3')	Anti-sense Primer (5'-3')
<i>gap</i>	CATG <u>CCATGG</u> CAATGACCGTCAAGGTTGGTAT	CCCAAGCTTTCAGAGCTTGTCTGGCAAC
<i>sec</i>	CATG <u>CCATGG</u> CAGTGCGCGACGATGACCTTG	CCCAAGCTTTCATGGCGTCACCCCG
<i>atpA</i>	GGGAATTCCATATGGCCGACAAGTTACCC	GGAAGATATCTCAGGACCTCTTCGTGGC
<i>pntB</i>	GGGAATTCCATATGGTCTCCTCGAACTGATT	CGGGTACCCTACTTGGCGTCGGCCGT
<i>mce</i>	CATG <u>CCATGGG</u> CATGAGTAATGAGGATCTTTTCATC	AAGGAAAAAAGCGGCCGCTCAGTTCTTCGGGTACTGG
<i>cpr</i>	CATG <u>CCATGGG</u> CAGCAGTGGCAGTGGCAAG	AAGGAAAAAAGCGGCCGCTCACCACACATCACGCAGAT

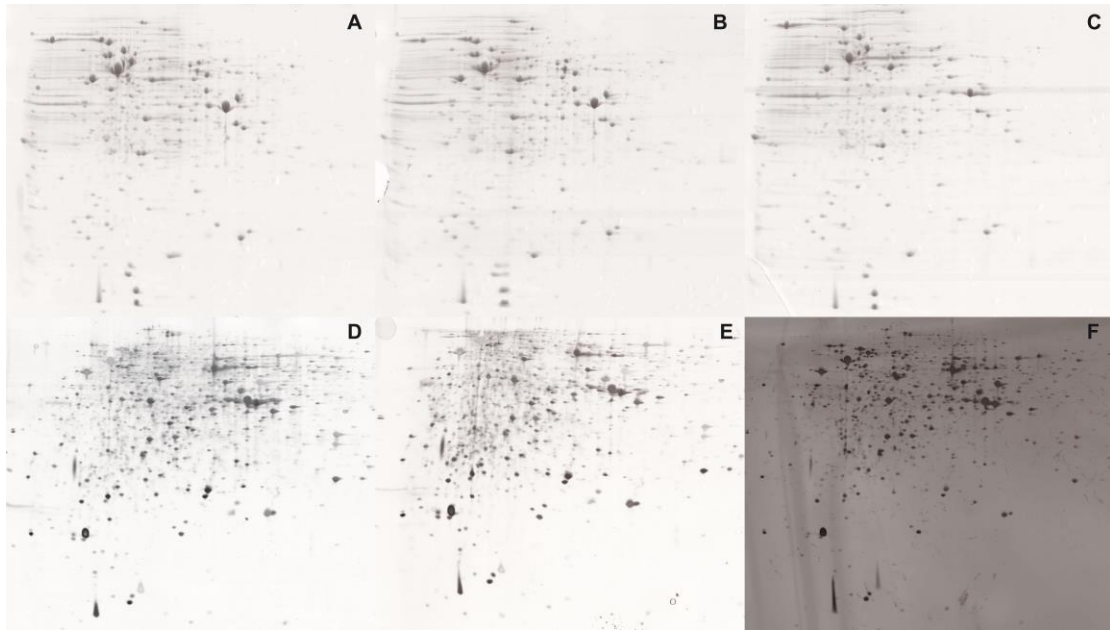


Figure S1: Protein profile of the parental strain (A-C) and the shuffled strain (D-F) on the gel.

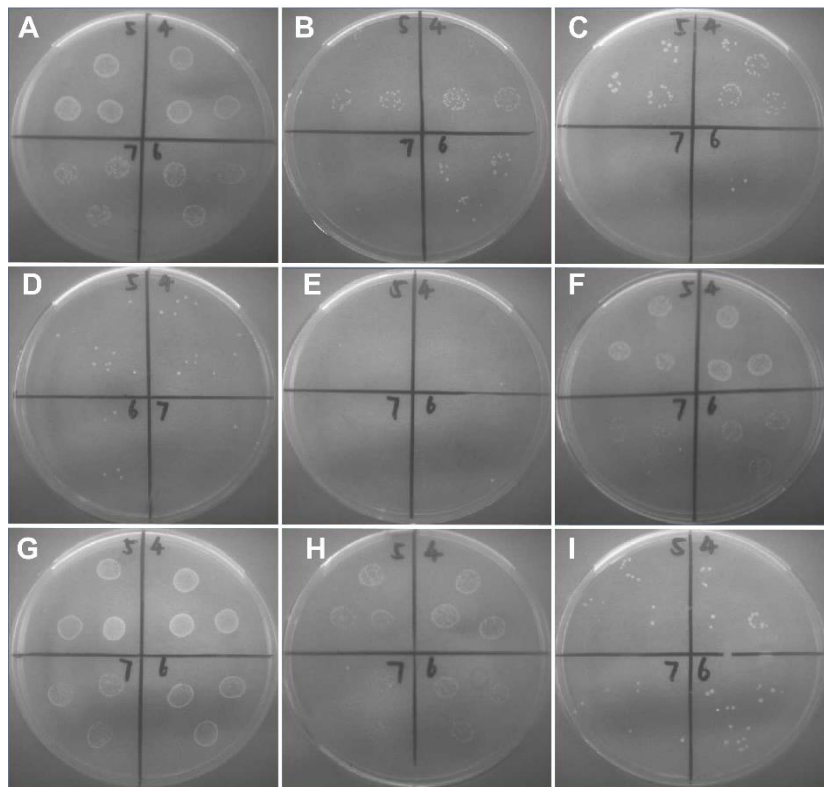


Figure S2: A portion of the culture dishes of recombinant strains grown with additional acids used in viable-cell counting. (A. Ec-1, without acid; B. Ec-c, 1 g/L propionic acid; C. Ec-1, 2 g/L propionic acid; D. Ec-a, 2 g/L propionic acid; E. Ec-p, 4 g/L acetic acid; F. Ec-g, 1 g/L propionic acid; G. Ec-s, 1 g/L propionic acid; H. Ec-s, 2 g/L propionic acid; I. Ec-m, 1 g/L propionic acid)