**Table S4.** Strains used in this study

|  |  |  |
| --- | --- | --- |
| Strain Name | Parent strain | Description |
| 12444ΔSacB | Wild type (DSM 12444) | Sucrose sensitivity gene deleted (Kontur et al., 2018) |
| 12444ΔLigL | 12444ΔSacB | Markerless deletion of *ligL* |
| 12444ΔLigN | 12444ΔSacB | Markerless deletion of *ligN* |
| 12444ΔLigD | 12444ΔSacB | Markerless deletion of *ligD* |
| 12444ΔLigO | 12444ΔSacB | Markerless deletion of *ligO* |

**Table S5.** Plasmids used to inactivate indicated *lig* genes in this study (Cecil et al. 2018)

|  |  |  |
| --- | --- | --- |
| Plasmid Name | Base Plasmid\* | Gene deletion |
| pJM307 | pAK405 | *ligD* |
| pJM311 | pAK405 | *ligO* |
| pJM312 | pAK405 | *ligN* |
| pJM323 | pAK405 | *ligL* |

\* Kaczmarczyk et al. 2012

**Table S6.** Primers for confirming *lig* deletion mutants (Cecil et al. 2018)

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Forward Primer | Reverse Primer | Target |
| 01025 | TCAGGTCCACCAGTTCGCCATC | GTCTCTATCGCGTTGACCGACTGG | *ligD* |
| 03960 | ACAAGAACTTCGGCCTCTATCGTGAC | GTGAAGCTCGACGTGACCAATCG | *ligO* |
| 03965 | CGCGAACTTGGTGGTATTGTAGATGC | CGAAAAGGCGCGAGTGATCTTCTTC | *ligN* |
| 09390 | GCTATGCCGAATTTGCCCTGAC | CTGTCGGGATATGCCATCTACATCTGG | *ligL* |

**References:**

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