**Table S4. Genes down regulated in CYL11481 (saeSL) relative to wild type Newman (CYL5876).**

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| --- | --- | --- | --- |
| **Fold change** | **Gene Name** | **NCBI ID** | **locus tag** |
| 2.03 | acetoin reductase | 5329961 | NWMN\_0071 |
| 2.51 | hypothetical protein | 5329982 | NWMN\_0112 |
| 2.21 | oligopeptide ABC transporter permease | 5330006 | NWMN\_0144 |
| 2.14 | RGD-containing lipoprotein | 5330008 | NWMN\_0146 |
| 7.4 | staphylocoagulase precursor | 5330026 | NWMN\_0166 |
| 3.26 | autolysin sensor histidine kinase | 5332453 | NWMN\_0194 |
| 2.27 | two-component response regulator | 5332114 | NWMN\_0195 |
| 3.45 | truncated triacylglycerol lipase precursor | 5330103 | NWMN\_0262 |
| 2.23 | hypothetical protein | 5330127 | NWMN\_0288 |
| 2.23 | phage terminase large subunit | 5330128 | NWMN\_0289 |
| 2.23 | phage portal protein | 5330129 | NWMN\_0290 |
| 2.23 | hypothetical protein | 5330130 | NWMN\_0291 |
| 5.01 | phage major head protein | 5330133 | NWMN\_0294 |
| 4.08 | hypothetical protein | 5330134 | NWMN\_0295 |
| 3.27 | hypothetical protein | 5330135 | NWMN\_0296 |
| 3.27 | hypothetical protein | 5330136 | NWMN\_0297 |
| 6.05 | hypothetical protein | 5330137 | NWMN\_0298 |
| 4.27 | hypothetical protein | 5330138 | NWMN\_0299 |
| 5.96 | hypothetical protein | 5330139 | NWMN\_0300 |
| 2.91 | phage tape measure protein | 5330141 | NWMN\_0302 |
| 2.64 | hypothetical protein | 5330144 | NWMN\_0305 |
| 2.64 | hypothetical protein | 5330145 | NWMN\_0306 |
| 2.64 | hypothetical protein | 5330146 | NWMN\_0307 |
| 2.87 | hypothetical protein | 5330147 | NWMN\_0308 |
| 2.21 | amidase | 5330152 | NWMN\_0313 |
| 3.37 | hypothetical protein | 5330167 | NWMN\_0328 |
| 13.56 | hypothetical protein | 5330196 | NWMN\_0362 |
| 2.76 | superantigen-like protein | 5332019 | NWMN\_0400 |
| 2.32 | hypothetical protein | 5332475 | NWMN\_0401 |
| 30.38 | hypothetical protein | 5330217 | NWMN\_0402 |
| 2.18 | glutamate synthase subunit beta | 5331962 | NWMN\_0437 |
| 20.14 | sensor histidine kinase SaeS | 5330385 | NWMN\_0674 |
| 20.14 | DNA-binding response regulator SaeR | 5332432 | NWMN\_0675 |
| 20.14 | hypothetical protein | 5332431 | NWMN\_0676 |
| 36.14 | hypothetical protein | 5330386 | NWMN\_0677 |
| 7.46 | extracellular matrix and plasma binding protein | 5330439 | NWMN\_0758 |
| 8.63 | thermonuclease precursor | 5330440 | NWMN\_0760 |
| 2.45 | hypothetical protein | 5330448 | NWMN\_0769 |
| 16.79 | hypothetical protein | 5330653 | NWMN\_1066 |
| 20.01 | formyl peptide receptor-like 1 inhibitory protein | 5330654 | NWMN\_1067 |
| 24.77 | hypothetical protein | 5330656 | NWMN\_1069 |
| 27.58 | hypothetical protein | 5330657 | NWMN\_1070 |
| 3.75 | superantigen-like protein | 5330663 | NWMN\_1077 |
| 4.94 | DNA-binding protein | 5331890 | NWMN\_1083 |
| 5.1 | anti protein | 5331661 | NWMN\_1084 |
| 2.56 | homoserine dehydrogenase | 5332539 | NWMN\_1240 |
| 2.35 | indole-3-glycerol-phosphate synthase | 5332564 | NWMN\_1282 |
| 2.35 | N-(5-phosphoribosyl) anthranilate isomerase | 5332563 | NWMN\_1283 |
| 2.35 | tryptophan synthase subunit beta | 5332566 | NWMN\_1284 |
| 2.35 | tryptophan synthase subunit alpha | 5332562 | NWMN\_1285 |
| 12.47 | alanine dehydrogenase | 5332036 | NWMN\_1349 |
| 2.08 | hypothetical protein | 5330856 | NWMN\_1442 |
| 2.2 | threonyl-tRNA synthetase | 5332109 | NWMN\_1576 |
| 2.1 | hypothetical protein | 5332472 | NWMN\_1618 |
| 3.08 | serine protease SplA | 5332495 | NWMN\_1706 |
| 2.54 | phage holin | 5331057 | NWMN\_1770 |
| 2.74 | phage major tail protein | 5331070 | NWMN\_1783 |
| 2.61 | hypothetical protein | 5331075 | NWMN\_1788 |
| 2.14 | phage head protein | 5331076 | NWMN\_1789 |
| 4.31 | phage endodeoxyribonuclease | 5331090 | NWMN\_1803 |
| 4.07 | hypothetical protein pmtA | 5331135 | NWMN\_1866 |
| 4.07 | ABC transporter ATP-binding protein | 5331136 | NWMN\_1867 |
| 4.07 | hypothetical protein | 5331137 | NWMN\_1868 |
| 3.38 | ABC transporter ATP-binding protein | 5331138 | NWMN\_1869 |
| 3.38 | GntR family regulatory protein | 5331139 | NWMN\_1870 |
| 53.79 | MHC class II analog protein | 5331141 | NWMN\_1872 |
| 29.8 | truncated beta-hemolysin | 5332118 | NWMN\_1873 |
| 5.32 | hypothetical protein | 5331142 | NWMN\_1874 |
| 5.32 | hypothetical protein | 5331143 | NWMN\_1875 |
| 24.27 | complement inhibitor SCIN | 5331144 | NWMN\_1876 |
| 3.38 | leukocidin/hemolysin toxin subunit F | 5331190 | NWMN\_1927 |
| 2.19 | hypothetical protein | 5332465 | NWMN\_1941 |
| 2.24 | isopropylmalate isomerase small subunit | 5332079 | NWMN\_1966 |
| 11.62 | immunoglobulin G-binding protein Sbi | 5331420 | NWMN\_2317 |
| 62.41 | gamma-hemolysin component A | 5332443 | NWMN\_2318 |
| 20.16 | gamma-hemolysin component C | 5332008 | NWMN\_2319 |
| 14.71 | gamma hemolysin, component B | 5332010 | NWMN\_2320 |
| 7.38 | hypothetical protein | 5332009 | NWMN\_2321 |
| 2.69 | lipase precursor | 5332031 | NWMN\_2569 |
| 3.03 | pyrrolidone-carboxylate peptidase | 5331611 | NWMN\_2588 |