

Table S4. All genes with significant difference in signal intensity between the control- and the EcO157-inoculated biofilm community

Gene name or protein	Gene category	Sub-category	Biofilms <sup>a</sup>
B_lactamase_A	Antibiotic resistance	Beta-lactamases	24-C and 24-S
Tet	Antibiotic resistance	other	48-C and 48-S
lysin	Bacteria phage	LYSIS	24-C and 24-S
<i>uvsW</i>	Bacteria phage	REPLICATION	24-C and 24-S
DNA_polymerase_type_I	Bacteria phage	REPLICATION	48-C and 48-S
primase	Bacteria phage	REPLICATION	48-C and 48-S
T4_type_portal_protein	Bacteria phage	REPLICATION	48-C and 48-S
scaffold	Bacteria phage	STRUCTURAL	24-C and 24-S
FTHFS	Carbon cycling	Acetogenesis	48-C and 48-S
cellobiase	Carbon cycling	Carbon degradataion	24-C and 24-S; 48-C and 48-S
exoglucanase	Carbon cycling	Carbon degradataion	24-C and 24-S
endochitinase	Carbon cycling	Carbon degradataion	24-C and 24-S
phenol_oxidase	Carbon cycling	Carbon degradataion	24-C and 24-S
glucoamylase	Carbon cycling	Carbon degradataion	24-C and 24-S
<i>vanA</i>	Carbon cycling	Carbon degradataion	48-C and 48-S
<i>amyA</i>	Carbon cycling	Carbon degradataion	48-C and 48-S
<i>pulA</i>	Carbon cycling	Carbon degradataion	48-C and 48-S
rubisco	Carbon cycling	Carbon fixation	24-C and 24-S
<i>pcc</i>	Carbon cycling	Carbon fixation	24-C and 24-S
<i>aclB</i>	Carbon cycling	Carbon fixation	24-C and 24-S
CODH	Carbon cycling	Carbon fixation	48-C and 48-S
<i>mmoX</i>	Carbon cycling	Methane	24-C and 24-S
<i>mcrA</i>	Carbon cycling	Methane	24-C and 24-S
P450	Energy process	NA	24-C and 24-S
Ni_Fe_hydrogenase	Energy process	NA	24-C and 24-S
cytochrome	Energy process	Energy process	24-C and 24-S
Al	Metal Resistance	Aluminum	48-C and 48-S
ArsA	Metal Resistance	Arsenic	24-C and 24-S; 48-C and 48-S
ArsC	Metal Resistance	Arsenic	24-C and 24-S
CadA	Metal Resistance	Cadmium	24-C and 24-S
<i>czcA</i>	Metal Resistance	Cadmium,Cobalt,Zinc	24-C and 24-S
<i>czcC</i>	Metal Resistance	Cadmium,Cobalt,Zinc	48-C and 48-S
ChrA	Metal Resistance	Chromium	24-C and 24-S
CopA	Metal Resistance	Copper	24-C and 24-S
CusF	Metal Resistance	Copper	24-C and 24-S
<i>pbrD</i>	Metal Resistance	Lead	24-C and 24-S
<i>pbrT</i>	Metal Resistance	Lead	24-C and 24-S
<i>mer</i>	Metal Resistance	Mercury	24-C and 24-S
<i>silC</i>	Metal Resistance	Silver	24-C and 24-S
<i>silA</i>	Metal Resistance	Silver	48-C and 48-S
<i>terC</i>	Metal Resistance	Tellurium	24-C and 24-S; 48-C and 48-S
<i>tehB</i>	Metal Resistance	Tellurium	24-C and 24-S
<i>zntA</i>	Metal Resistance	Zinc	24-C and 24-S
<i>nasA</i>	Nitrogen	Assimilatory N reduction	48-C and 48-S
<i>narG</i>	Nitrogen	Denitrification	24-C and 24-S
<i>nirS</i>	Nitrogen	Denitrification	24-C and 24-S
<i>napA</i>	Nitrogen	Dissimilatory N reduction	24-C and 24-S
<i>nifH</i>	Nitrogen	Nitrogen fixation	24-C and 24-S; 48-C and 48-S
<i>todF</i>	Organic Remediation	NA	24-C and 24-S; 48-C and 48-S

<i>catB</i>	Organic Remediation	Aromatics	24-C and 24-S; 48-C and 48-S
<i>tftH</i>	Organic Remediation	Aromatics	24-C and 24-S; 48-C and 48-S
<i>pobA</i>	Organic Remediation	Aromatics	24-C and 24-S; 48-C and 48-S
<i>phtA</i>	Organic Remediation	Aromatics	24-C and 24-S; 48-C and 48-S
<i>pimF</i>	Organic Remediation	Aromatics	24-C and 24-S
<i>nmoA</i>	Organic Remediation	Aromatics	24-C and 24-S
<i>bclA</i>	Organic Remediation	Aromatics	24-C and 24-S
<i>mdlC</i>	Organic Remediation	Aromatics	24-C and 24-S
<i>phaB</i>	Organic Remediation	Aromatics	24-C and 24-S
<i>oxdB</i>	Organic Remediation	Aromatics	24-C and 24-S
catechol_B	Organic Remediation	Aromatics	24-C and 24-S
<i>flnB</i>	Organic Remediation	Aromatics	24-C and 24-S
<i>nagG</i>	Organic Remediation	Aromatics	24-C and 24-S
<i>benAB</i>	Organic Remediation	Aromatics	24-C and 24-S
<i>hmgC</i>	Organic Remediation	Aromatics	24-C and 24-S
<i>apc</i>	Organic Remediation	Aromatics	24-C and 24-S
<i>bbs</i>	Organic Remediation	Aromatics	24-C and 24-S
<i>pchCF</i>	Organic Remediation	Aromatics	24-C and 24-S
Arylest	Organic Remediation	Aromatics	24-C and 24-S
BADH	Organic Remediation	Aromatics	24-C and 24-S
Catechol	Organic Remediation	Aromatics	24-C and 24-S
<i>tdnB</i>	Organic Remediation	Aromatics	24-C and 24-S
<i>nahA</i>	Organic Remediation	Aromatics	24-C and 24-S
<i>mhpB</i>	Organic Remediation	Aromatics	48-C and 48-S
<i>bbsG</i>	Organic Remediation	Aromatics	48-C and 48-S
<i>cbdA</i>	Organic Remediation	Aromatics	48-C and 48-S
<i>bphB</i>	Organic Remediation	Aromatics	48-C and 48-S
<i>arhA</i>	Organic Remediation	Aromatics	48-C and 48-S
<i>dxnA</i>	Organic Remediation	Aromatics	48-C and 48-S
<i>phdCI</i>	Organic Remediation	Aromatics	48-C and 48-S
<i>phdI</i>	Organic Remediation	Aromatics	48-C and 48-S
<i>trzN</i>	Organic Remediation	Herbicides related	24-C and 24-S
<i>phn</i>	Organic Remediation	Herbicides related	48-C and 48-S
<i>atzB</i>	Organic Remediation	Herbicides related	48-C and 48-S
<i>atzC</i>	Organic Remediation	Herbicides related	48-C and 48-S
<i>atzD</i>	Organic Remediation	Herbicides related	48-C and 48-S
<i>chnE</i>	Organic Remediation	Other Hydrocarbons	24-C and 24-S
<i>Xamo</i>	Organic Remediation	Other Hydrocarbons	48-C and 48-S
<i>alkH</i>	Organic Remediation	Other Hydrocarbons	48-C and 48-S
<i>alkJ</i>	Organic Remediation	Other Hydrocarbons	48-C and 48-S
<i>msmABCD</i>	Organic Remediation	Others	24-C and 24-S; 48-C and 48-S
<i>alkK</i>	Organic Remediation	Others	24-C and 24-S
MSAD	Organic Remediation	Others	48-C and 48-S
<i>linB</i>	Organic Remediation	Pesticides related compound	24-C and 24-S; 48-C and 48-S
<i>linC</i>	Organic Remediation	Pesticides related compound	48-C and 48-S
<i>gyrB</i>	other category	Phylogenetic marker	24-C and 24-S
phytase	Phosphorus	Phosphorus utilization	24-C and 24-S; 48-C and 48-S
<i>desR</i>	Stress	Cold shock	24-C and 24-S
<i>grpE</i>	Stress	Heat shock	24-C and 24-S
<i>glnA</i>	Stress	Nitrogen limitation	48-C and 48-S
<i>proV</i>	Stress	Osmotic stress	24-C and 24-S
<i>cydA</i>	Stress	Oxygen limitation	48-C and 48-S

<i>arcA</i>	Stress	Oxygen limitation	48-C and 48-S
<i>katE</i>	Stress	Oxygen stress	24-C and 24-S
<i>ahpC</i>	Stress	Oxygen stress	24-C and 24-S
<i>ahpF</i>	Stress	Oxygen stress	48-C and 48-S
<i>pstA</i>	Stress	Phosphate limitation	24-C and 24-S
<i>pstB</i>	Stress	Phosphate limitation	24-C and 24-S
<i>phoB</i>	Stress	Phosphate limitation	24-C and 24-S
<i>phoA</i>	Stress	Phosphate limitation	24-C and 24-S
<i>pstC</i>	Stress	Phosphate limitation	48-C and 48-S
<i>clpC</i>	Stress	Protein stress	24-C and 24-S
<i>sigma_24</i>	Stress	Sigma factors	24-C and 24-S; 48-C and 48-S
<i>sigma_70</i>	Stress	Sigma factors	24-C and 24-S
<i>rpoS</i> (sigma 38)	Stress	Sigma factors	48-C and 48-S
APS_AprB	Sulphur	NA	24-C and 24-S
APS_AprA	Sulphur	NA	24-C and 24-S
<i>aprA</i>	Sulphur	Other	48-C and 48-S
<i>dsrA</i>	Sulphur	sulfite reductase	24-C and 24-S
<i>dsrB</i>	Sulphur	sulfite reductase	24-C and 24-S
<i>iro</i>	virulence	NA	24-C and 24-S
<i>vip</i>	virulence	NA	24-C and 24-S
<i>cap</i>	virulence	NA	24-C and 24-S

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<sup>a</sup>The t test was performed between the control- and the EcO157 inoculated biofilm (n=3) at each time point (24 h or 48 h) using all detected probes for each gene. Significance was measured by  $P < 0.05$ .