Table S3 The information of unigenes associated with putative biosynthesis pathway map of *C. paliurus* polysaccharide.

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| gene | Definition | EC number |
| TRINITY\_DN83861\_c1\_g2 | UDP-glucose 4-epimerase | EC:5.1.3.2 |
| TRINITY\_DN83861\_c1\_g1 | UDP-glucose 4-epimerase | EC:5.1.3.2 |
| TRINITY\_DN95497\_c2\_g1 | UDP-glucose 4-epimerase | EC:5.1.3.2 |
| TRINITY\_DN98009\_c0\_g1 | UDP-glucose 4-epimerase | EC:5.1.3.2 |
| TRINITY\_DN17106\_c0\_g1 | UDP-glucose 4-epimerase | EC:5.1.3.2 |
| TRINITY\_DN209523\_c0\_g1 | UDP-glucose 4-epimerase | EC:5.1.3.2 |
| TRINITY\_DN111884\_c0\_g1 | UDP-glucose 4-epimerase | EC:5.1.3.2 |
| TRINITY\_DN92951\_c3\_g1 | UDP-glucose 4-epimerase | EC:5.1.3.2 |
| TRINITY\_DN82527\_c0\_g2 | UDP-glucose 6-dehydrogenase | EC: 1.1.1.22 |
| TRINITY\_DN201517\_c0\_g1 | UDP-glucose 6-dehydrogenase | EC: 1.1.1.22 |
| TRINITY\_DN43572\_c0\_g1 | UDP-glucose 6-dehydrogenase | EC: 1.1.1.22 |
| TRINITY\_DN93239\_c0\_g2 | UDP-glucose 6-dehydrogenase | EC: 1.1.1.22 |
| TRINITY\_DN87479\_c0\_g1 | UDP-glucose 6-dehydrogenase | EC: 1.1.1.22 |
| TRINITY\_DN88611\_c1\_g1 | UDP-glucuronate decarboxylase | EC: 4.1.1.35 |
| TRINITY\_DN83085\_c1\_g5 | UDP-glucuronate decarboxylase | EC: 4.1.1.35 |
| TRINITY\_DN82117\_c0\_g5 | UDP-glucuronate decarboxylase | EC: 4.1.1.35 |
| TRINITY\_DN171131\_c0\_g1 | UDP-glucuronate decarboxylase | EC: 4.1.1.35 |
| TRINITY\_DN78206\_c0\_g2 | UDP-glucuronate decarboxylase | EC: 4.1.1.35 |
| TRINITY\_DN136939\_c0\_g1 | UDP-glucuronate decarboxylase | EC: 4.1.1.35 |
| TRINITY\_DN158821\_c0\_g1 | UDP-glucuronate decarboxylase | EC: 4.1.1.35 |
| TRINITY\_DN83830\_c3\_g2 | UDP-glucuronate decarboxylase | EC: 4.1.1.35 |
| TRINITY\_DN96822\_c1\_g1 | UDP-glucuronate decarboxylase | EC: 4.1.1.35 |
| TRINITY\_DN96822\_c1\_g4 | UDP-glucuronate decarboxylase | EC: 4.1.1.35 |
| TRINITY\_DN94984\_c0\_g4 | UDP-glucuronate decarboxylase | EC: 4.1.1.35 |
| TRINITY\_DN94648\_c0\_g4 | UDP-glucuronate decarboxylase | EC: 4.1.1.35 |
| TRINITY\_DN96635\_c0\_g1 | xylan 1,4-beta-xylosidase | EC:5.1.3.5 |
| TRINITY\_DN107831\_c0\_g1 | xylan 1,4-beta-xylosidase | EC:5.1.3.5 |
| TRINITY\_DN138012\_c0\_g1 | UDP-glucose 4,6-dehydratase | EC: 4.2.1.76 |
| TRINITY\_DN97446\_c5\_g2 | UDP-glucose 4,6-dehydratase | EC: 4.2.1.76 |
| TRINITY\_DN92023\_c2\_g3 | UDP-glucose 4,6-dehydratase | EC: 4.2.1.76 |
| TRINITY\_DN92244\_c2\_g3 | UDP-glucose 4,6-dehydratase | EC: 4.2.1.76 |
| TRINITY\_DN98562\_c0\_g1 | UDP-glucose 4,6-dehydratase | EC: 4.2.1.76 |
| TRINITY\_DN60941\_c0\_g1 | 3,5-epimerase/4-reductase | EC:5.1.3.- |
| TRINITY\_DN83458\_c1\_g5 | 3,5-epimerase/4-reductase | EC:5.1.3.- |
| TRINITY\_DN92023\_c2\_g7 | 3,5-epimerase/4-reductase | EC:5.1.3.- |
| TRINITY\_DN61687\_c0\_g1 | 3,5-epimerase/4-reductase | EC:5.1.3.- |
| TRINITY\_DN60941\_c0\_g1 | 4-reductase | EC:1.1.1.- |
| TRINITY\_DN83458\_c1\_g5 | 4-reductase | EC:1.1.1.- |
| TRINITY\_DN92023\_c2\_g7 | 4-reductase | EC:1.1.1.- |
| TRINITY\_DN61687\_c0\_g1 | 4-reductase | EC:1.1.1.- |
| TRINITY\_DN91459\_c1\_g3 | UDP-glucuronate 4-epimerase | EC: 5.1.3.6 |
| TRINITY\_DN91806\_c0\_g3 | UDP-glucuronate 4-epimerase | EC: 5.1.3.6 |
| TRINITY\_DN95773\_c1\_g1 | UDP-glucuronate 4-epimerase | EC: 5.1.3.6 |
| TRINITY\_DN91060\_c3\_g5 | UDP-glucuronate 4-epimerase | EC: 5.1.3.6 |
| TRINITY\_DN90463\_c2\_g1 | UDP-glucuronate 4-epimerase | EC: 5.1.3.6 |
| TRINITY\_DN202488\_c0\_g1 | phosphomannomutase | EC: 5.4.2.8 |
| TRINITY\_DN77554\_c0\_g2 | phosphomannomutase | EC: 5.4.2.8 |
| TRINITY\_DN168623\_c0\_g1 | phosphomannomutase | EC: 5.4.2.8 |
| TRINITY\_DN89461\_c0\_g3 | phosphomannomutase | EC: 5.4.2.8 |
| TRINITY\_DN193194\_c0\_g1 | phosphomannomutase | EC: 5.4.2.8 |
| TRINITY\_DN89461\_c0\_g1 | phosphomannomutase | EC: 5.4.2.8 |
| TRINITY\_DN174495\_c0\_g1 | phosphomannomutase | EC: 5.4.2.8 |
| TRINITY\_DN63399\_c0\_g1 | phosphomannomutase | EC: 5.4.2.8 |
| TRINITY\_DN150323\_c0\_g1 | guanylyltransferase | EC: 2.7.7.13 |
| TRINITY\_DN92316\_c0\_g10 | guanylyltransferase | EC: 2.7.7.13 |
| TRINITY\_DN135715\_c0\_g1 | guanylyltransferase | EC: 2.7.7.13 |
| TRINITY\_DN23511\_c0\_g1 | guanylyltransferase | EC: 2.7.7.13 |
| TRINITY\_DN89112\_c2\_g1 | guanylyltransferase | EC: 2.7.7.13 |
| TRINITY\_DN87865\_c1\_g5 | guanylyltransferase | EC: 2.7.7.13 |
| TRINITY\_DN89112\_c2\_g6 | guanylyltransferase | EC: 2.7.7.13 |
| TRINITY\_DN125684\_c0\_g1 | guanylyltransferase | EC: 2.7.7.13 |
| TRINITY\_DN69133\_c0\_g1 | guanylyltransferase | EC: 2.7.7.13 |
| TRINITY\_DN55690\_c0\_g1 | guanylyltransferase | EC: 2.7.7.13 |
| TRINITY\_DN92316\_c0\_g1 | guanylyltransferase | EC: 2.7.7.13 |
| TRINITY\_DN95705\_c0\_g3 | guanylyltransferase | EC: 2.7.7.13 |
| TRINITY\_DN76754\_c0\_g1 | mannose-6-phosphate isomerase | EC:5.3.1.8 |
| TRINITY\_DN75066\_c0\_g1 | mannose-6-phosphate isomerase | EC:5.3.1.8 |
| TRINITY\_DN95388\_c1\_g6 | mannose-6-phosphate isomerase | EC:5.3.1.8 |
| TRINITY\_DN34736\_c0\_g1 | mannose-6-phosphate isomerase | EC:5.3.1.8 |
| TRINITY\_DN128421\_c0\_g1 | Uridine-diphosphate glucose pyrophosphorylase | EC:2.7.7.9 |
| TRINITY\_DN44878\_c0\_g1 | Uridine-diphosphate glucose pyrophosphorylase | EC:2.7.7.9 |
| TRINITY\_DN83373\_c2\_g5 | Uridine-diphosphate glucose pyrophosphorylase | EC:2.7.7.9 |
| TRINITY\_DN80549\_c0\_g2 | Uridine-diphosphate glucose pyrophosphorylase | EC:2.7.7.9 |
| TRINITY\_DN137688\_c0\_g1 | Uridine-diphosphate glucose pyrophosphorylase | EC:2.7.7.9 |
| TRINITY\_DN84933\_c2\_g10 | Uridine-diphosphate glucose pyrophosphorylase | EC:2.7.7.9 |
| TRINITY\_DN84933\_c2\_g11 | Uridine-diphosphate glucose pyrophosphorylase | EC:2.7.7.9 |
| TRINITY\_DN84933\_c2\_g12 | Uridine-diphosphate glucose pyrophosphorylase | EC:2.7.7.9 |
| TRINITY\_DN28124\_c0\_g1 | Uridine-diphosphate glucose pyrophosphorylase | EC:2.7.7.9 |
| TRINITY\_DN84933\_c2\_g1 | Uridine-diphosphate glucose pyrophosphorylase | EC:2.7.7.9 |
| TRINITY\_DN94917\_c0\_g6 | Uridine-diphosphate glucose pyrophosphorylase | EC:2.7.7.9 |
| TRINITY\_DN96447\_c1\_g1 | Phosphoglucomutase | EC:5.4.2.2 |
| TRINITY\_DN41566\_c0\_g1 | Phosphoglucomutase | EC:5.4.2.2 |
| TRINITY\_DN94787\_c0\_g1 | Phosphoglucomutase | EC:5.4.2.2 |
| TRINITY\_DN76734\_c0\_g1 | Phosphoglucomutase | EC:5.4.2.2 |
| TRINITY\_DN119039\_c0\_g1 | Phosphoglucomutase | EC:5.4.2.2 |
| TRINITY\_DN35514\_c0\_g1 | Phosphoglucomutase | EC:5.4.2.2 |
| TRINITY\_DN81021\_c4\_g6 | Phosphoglucomutase | EC:5.4.2.2 |
| TRINITY\_DN61651\_c0\_g2 | Glucose-6-phosphate isomerase | EC:5.3.1.9 |
| TRINITY\_DN96738\_c1\_g3 | Glucose-7-phosphate isomerase | EC:5.3.1.9 |
| TRINITY\_DN91914\_c1\_g3 | Glucose-8-phosphate isomerase | EC:5.3.1.9 |
| TRINITY\_DN82144\_c4\_g4 | Glucose-9-phosphate isomerase | EC:5.3.1.9 |
| TRINITY\_DN93347\_c3\_g1 | Glucose-10-phosphate isomerase | EC:5.3.1.9 |
| TRINITY\_DN95019\_c0\_g3 | Glucose-11-phosphate isomerase | EC:5.3.1.9 |
| TRINITY\_DN192700\_c0\_g1 | Glucose-12-phosphate isomerase | EC:5.3.1.9 |
| TRINITY\_DN82664\_c1\_g1 | Glucose-13-phosphate isomerase | EC:5.3.1.9 |
| TRINITY\_DN71018\_c2\_g1 | Glucose-14-phosphate isomerase | EC:5.3.1.9 |
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