

Table S3. OGs present only in the *R. bellii* genomes.

| OG¹ | Annotation (312)² |
|-----------------------|---|
| 1848 | Angiotensinogen-1 precursor |
| 1783 | ATPase (AAA+ superfamily)-like |
| 1768 | ATP-dependent Clp protease proteolytic subunit |
| 1789 | ATP-dependent Clp protease proteolytic subunit |
| 1797 | Bifunctional penicillin-binding protein 1C |
| 1996 | Caldesmon |
| 1713 | Cassette chromosome recombinase B |
| 1948 | COG0477: Permeases of the major facilitator superfamily |
| 1773 | Deoxyribodipyrimidine photo-lyase |
| 1817 | DNA-cytosine methyltransferase |
| 1998 | Ethylene receptor 2 |
| 1712 | F-box/LRR-repeat protein 13 |
| 1759 | Filamentation induced by cAMP protein Fic |
| 1920 | Glycoprotein X precursor |
| 1876 | Guanosine polyphosphate pyrophosphohydrolase/synthetase |
| 1869 | Guanosine-3',5'-bis(diphosphate) 3'-pyrophosphohydrolase |
| <u>1440</u> | GTP pyrophosphokinase |
| 2024 | Heavy metal tolerance protein precursor |
| 1771 | Inversin |
| 1718 | Inversin-B |
| 1842 | Methionyl-tRNA synthetase |
| 1988 | methyltransferase, FkbM family |
| 1932 | Myosin heavy chain, non-muscle |
| 1813 | O-acetyl transferase |
| 1971 | peptide deformylase |
| 1764 | phenylalanine-4-hydroxylase |
| 2019 | Phenylserine dehydratase |
| 1757 | Poly-beta-hydroxybutyrate polymerase |
| 1973 | PREDICTED: retinoblastoma binding protein 9 |
| 1865 | Putative hemagglutinin protein |
| 1933 | Quaternary ammonium compound-resistance protein sugE |
| 1860 | rare lipoprotein A precursor |
| 1735 | Restriction endonuclease S subunits |
| 1804 | Restriction modification system DNA specificity domain |
| 1815 | Ribosomal protein L11 methyltransferase |
| 1776 | Sulfatase |
| 1767 | Type I restriction enzyme EcoR124II M protein |
| 1717 | Type I restriction-modification system methyltransferase subunit |
| 1976 | Type I restriction-modification system methyltransferase subunit |
| 1725 | Type I site-specific restriction-modification system, R (restriction) subunit |
| 1812 | UvrABC system protein C |
| 1833 | probable ABC transporter nitrate permease |
| 1907 | ABC transporter ATP-binding protein Uup, erythromycin resistance |
| 1818 | ABC-type anion transport system permease component |
| 1944 | sodium/pantothenate symporter |
| 1965 | Citrate-proton symporter |
| 1845 | MFS type sugar transporter |
| 1955 | MFS type sugar transporter |
| 2007 | MFS type sugar transporter |
| 1969 | multidrug resistance protein B |
| 1835 | Reticulocyte-binding protein 1 precursor |

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| 1734 | Outer membrane protein A precursor |
| 1753 | Ankyrin repeat |
| 1772 | Ankyrin repeat |
| 1808 | Ankyrin repeat |
| 1875 | Ankyrin repeat |
| 1958 | Ankyrin repeat |
| 1962 | Ankyrin repeat domain-containing protein 1 |
| 1939 | Ankyrin repeat domain-containing protein 18A |
| 1798 | Ankyrin repeat domain-containing protein 28 |
| 1897 | Ankyrin repeat domain-containing protein 36A |
| 1979 | Ankyrin repeat domain-containing protein 44 |
| 1830 | Tetratricopeptide repeat-containing protein |
| 1861 | Tetratricopeptide repeat-containing protein |
| 1926 | Tetratricopeptide repeat-containing protein |
| 1726 | LexA repressor |
| 1715 | transcription regulator containing helix turn helix domain |
| 1992 | Cytotoxic translational repressor of toxin-antitoxin system RelE |
| 2014 | Transcriptional activator protein yukR |
| 1828 | transcriptional regulator, AbrB family |
| 1896 | transcriptional regulator, AbrB family |
| 1800 | Caspase recruitment domain-containing protein 15 |
| 1914 | Caspase recruitment domain-containing protein 15 |
| 1982 | Caspase recruitment domain-containing protein 15 |
| 2009 | Caspase recruitment domain-containing protein 15 |
| 1820 | Prophage antirepressor |
| <u>7</u> | Pilin gene-inverting protein |
| 1791 | type-F conjugative transfer system pilin assembly protein TrbC |
| 1814 | Conjugative transfer protein TraE |
| 1741 | F pilus assembly protein TraF |
| 1792 | F pilus assembly protein TraH |
| 1748 | TraU |
| 1852 | Conjugative transfer protein TraV |
| 1849 | type-F conjugative transfer system protein TraW |
| 1870 | F pilin acetylation protein TraX |
| 1912 | Chitinase |
| 1858 | Transposase and inactivated derivative |
| 1942 | Transposase and inactivated derivative |
| 1850 | similar to transposase |
| <u>8</u> | similar to transposase |
| 1091 | similar to transposase |
| <u>935</u> | similar to transposase |
| <u>937</u> | similar to transposase |
| <u>942</u> | similar to transposase |
| 1868 | conserved hypothetical protein |
| 1946 | conserved hypothetical protein |
| 1827 | Hypothetical protein, conserved |

¹ Underscored RiOGs depict non-representative OGs.

² Including 222 representative HPs and two non-representative HPs.