

Table S1. Organic compound influx transporter systems in the *Ruegeria pomeroyi* DSS-3 genome.

Transporter ID	Transporter	Name	Mutant available (at least one component)	Type	Substrate confirmed, this study	Previous annotation (hypothesized or confirmed)	Method for prior annotation	Source
Transp_001	SPO0050-0053 ABC transporter		yes	ABC				
Transp_002	SPO0055 OmpA domain protein		yes	OmpA				
Transp_003	SPO0065 peptide/opine/nickel uptake family ABC transporter		yes	ABC				
Transp_004	SPO0098-0101 peptide/opine/nickel uptake family ABC transporter		yes	ABC				
Transp_005	SPO0109-0111 ABC-2 type transport system		yes	ABC				
Transp_006	SPO0123 MFS transporter		yes	MFS				
Transp_007	SPO0184-00186 tripartite tricarboxylate transporter	<i>tctABC</i>	yes	TTT	Citrate	Citrate	GapMind	
Transp_008	SPO0237-0240 glycerol-3-phosphate ABC transporter		yes	ABC				
Transp_009	SPO0376-0379 sugar or nucleotide ABC transporter	<i>nupABC</i>	yes	ABC	Thymidine	novel		
Transp_010	SPO0398 amino acid/amide ABC transporter		yes	ABC				
Transp_011	SPO0472 putative phosphonate transport system		yes	ABC				
Transp_012	SPO0519-0522 glutamate/glutamine/aspartate/asparagine ABC transporter		yes	ABC				
Transp_013	SPO0558-0560 oligopeptide ABC transporter		yes	ABC				
Transp_014	SPO0591-0593 Dihydroxypropanesulfonate (DHPS) TRAP transporter	<i>hspKLM</i>	yes	TRAP	DHPS	DHPS	Expression	K Mayer et al. 2010, Landa et al. 2017
Transp_015	SPO0608-0612 sugar ABC transporter	<i>glpVSTPQ</i>	yes	ABC	Glycerol	Glycerol	GapMind	
Transp_016	SPO0648-0651 sugar ABC transporter		yes	ABC				
Transp_017	SPO0660-0664 N-acetyltaurine ABC transporter		yes	ABC		N-acetyltaurine	Expression	Denger et al 2011
Transp_018	SPO0674-0676 taurine ABC transporter	<i>tauABC</i>	yes	ABC	Taurine	Taurine	Expression	Gozrynska et al 2006
Transp_019	SPO0702-0706 oligopeptide ABC transporter		yes	ABC				
Transp_020	SPO0714-0715 PTS system IIA component, Man family		yes	PTS				
Transp_021	SPO0736-0738 TRAP dicarboxylate transporter		yes	TRAP				
Transp_022	SPO0769-0771 Tripartite-type tricarboxylate transporter		yes	TTT				
Transp_023	SPO0780-0783 phosphonate ABC transporter		yes	ABC				
Transp_024	SPO0789 Hemin uptake protein HemP		yes	HemP				
Transp_025	SPO0822-0825 branched-chain amino acid ABC transporter		yes	ABC				
Transp_026	SPO0861-0863 xylose ABC transporter	<i>xyFGH</i>	yes	ABC	Glucose/xylose	Glucose/xylose	Homology	Ex Wiegmann et al 2014
Transp_027	SPO0874 xanthine/uracil permease		yes	permease family				
Transp_028	SPO0959 DMT transporter		yes	DMT				
Transp_029	SPO0973 LAO/AO transport system ATPase		yes	AAA				
Transp_030	SPO1017-1021 branched-chain amino acid ABC transporter		yes	ABC				
Transp_031	SPO1028-1029 YeeE/YedE family protein		yes	YeeE/YedE				
Transp_032	SPO1060-1062 amino acid ABC transporter		yes	ABC				
Transp_033	SPO1073-1075 Tripartite-type tricarboxylate transporter		yes	TTT				
Transp_034	SPO1076 SLC13 family permease		yes	SLC13 family				
Transp_035	SPO1087 Choline transporter	<i>betT</i>	yes	BCCT	Choline	Choline	Knockout	Lidbury et al 2015
Transp_036	SPO1112-1114 C4 dicarboxylate TRAP transporter		yes	TRAP				
Transp_037	SPO1131-1133 glycine betaine/proline ABC transporter		yes	ABC				
Transp_038	SPO1145-1147 Ectoine/5-hydroxyectoine TRAP transporter	<i>uehABC</i>	yes	TRAP	Ectoine	Ectoine	Knockout	Schultz et al 2016
Transp_039	SPO1197 amino acid/polyamine/organoanion transporter		yes	APC superfamily				
Transp_040	SPO1210-1213 oligopeptide ABC transporter		yes	ABC				
Transp_041	SPO1304-1307 Hs/Glu/Gln/Arg/opine family ABC transporter		yes	ABC				
Transp_042	SPO1308 ABC transporter; phosphonate		yes	ABC				
Transp_043	SPO1404 major facilitator superfamily (MFS) of membrane transport proteins		yes	MFS				
Transp_044	SPO1454-1456 TRAP C4 dicarboxylate transporter		yes	TRAP				
Transp_045	SPO1463-1465 TRAP dicarboxylate transporter		yes	TRAP				
Transp_046	SPO1490-1493 branched-chain amino acid ABC transporter		yes	ABC				
Transp_047	SPO1514 amino acid/amide ABC transporter		yes	ABC				
Transp_048	SPO1516 amino acid ABC transporter		yes	ABC				
Transp_049	SPO1543-1547 peptide/opine/nickel uptake family ABC transporter		yes	ABC				
Transp_050	SPO1548-1550 TMAO ABC transporter	<i>tmaXVY</i>	yes	ABC		TMAO	Knockout	Lidbury et al 2014
Transp_051	SPO1552 ABC transporter		yes	ABC				
Transp_052	SPO1606-1609 spermidine/putrescine ABC transporter		yes	ABC				
Transp_053	SPO1644-1647 oligopeptide/dipeptide ABC transporter		yes	ABC				
Transp_054	SPO1656-1659 oligopeptide/dipeptide ABC transporter		yes	ABC				
Transp_055	SPO1707-1710 branched-chain amino acid ABC transporter		yes	ABC				
Transp_056	SPO1719-1721 TRAP dicarboxylate transporter		yes	TRAP				
Transp_057	SPO1771-1773 TRAP dicarboxylate transporter		yes	TRAP				
Transp_058	SPO1785-1788 ABC transporter, taurine or sulfonate-like		yes	ABC				
Transp_059	SPO1810 sodium/solute symporter, acetate		yes	sodium/solute symporter				
Transp_060	SPO1814-1816 TRAP C4 dicarboxylate transporter		yes	TRAP				
Transp_061	SPO1820-1823 carbohydrate ABC transporter		yes	ABC				
Transp_062	SPO1829-1833 branched-chain amino acid ABC transporter		yes	ABC				
Transp_063	SPO1835-1839 carbohydrate ABC transporter		yes	ABC	GlcNac	GlcNac	GapMind	
Transp_064	SPO1846-1851 branched-chain amino acid ABC transporter	<i>nagTUVW</i>	yes	ABC				
Transp_065	SPO1935-1939 branched-chain amino acid ABC transporter		yes	ABC				
Transp_066	SPO2006-2009 spermidine/putrescine ABC transporter		yes	ABC				
Transp_067	SPO2066 ABC peptide/nickel transporter		yes	ABC				
Transp_068	SPO2111-2112 OMP/P1/FadL/TodX family/DMT		yes	DMT				
Transp_069	SPO2155 competence protein		yes	ComEC				
Transp_070	SPO2186-2187 TRAP transporter		yes	TRAP				
Transp_071	SPO2302 biotin transporter bioY family protein		yes	bioY				
Transp_072	SPO2356-2358 Isethionate TRAP transporter	<i>iseKLM</i>	yes	TRAP	Isethionate	Isethionate	Expression	Weinitsche et al 2010
Transp_073	SPO2364-2367 amino acid ABC transporter		yes	ABC				
Transp_074	SPO2382-2384 tricarboxylate transporter family protein		yes	TTT				
Transp_075	SPO2431-2433 TRAP dicarboxylate transporter		yes	TRAP				
Transp_076	SPO2441-2443 glycine betaine/proline ABC transporter		yes	ABC				
Transp_077	SPO2530-2534 branched-chain amino acid ABC transporter		yes	ABC				
Transp_078	SPO2545-2547 TRAP dicarboxylate transporter		yes	TRAP				
Transp_079	SPO2551-2554 peptide/opine/nickel uptake family ABC transporter		yes	ABC				
Transp_080	SPO2571-2573 TRAP 3-OH butyrate	<i>hbtABC</i>	yes	TRAP	3-Hydroxybuty	novel		
Transp_081	SPO2604-2606 hypothetical protein		yes	TRAP				
Transp_082	SPO2626-2628 TRAP transporter	<i>dctMPQ</i>	yes	TRAP	Fumarate, Mz Fumarate, Malai		GapMind	
Transp_083	SPO2657-2661 cysteate ABC transporter		yes	ABC				
Transp_084	SPO2664-2667 polar amino acid uptake family ABC transporter		yes	ABC				
Transp_085	SPO2699-2702 opine/polyamine ABC transporter		yes	ABC				
Transp_086	SPO2744 malonate transporter, putative		yes	AEC				
Transp_087	SPO2802-2805 bmp family protein		yes	BMP				
Transp_088	SPO2813-2816 peptide/nickel/opine uptake family ABC transporter		yes	ABC				
Transp_089	SPO2831-2835 oligopeptide ABC transporter		yes	ABC				
Transp_090	SPO2952 trkA domain protein		yes	trkA				
Transp_091	SPO2995-2998 peptide/nickel/opine uptake family ABC transporter	<i>cntTUVWX</i>	yes	ABC	Carnitine	novel		
Transp_092	SPO3040-3043 polar amino acid uptake family ABC transporter	<i>cuyTUVW</i>	yes	ABC	Cysteate	novel		
Transp_093	SPO3046-3049 oligopeptide ABC transporter		yes	ABC				
Transp_094	SPO3186 glycine betaine transporter	<i>dmdT</i>	yes	ABC	DMSP	DMSP	Homology	
Transp_095	SPO3290-3295* (not 3293) branched-chain amino acid ABC transporter		yes	ABC				
Transp_096	SPO3335 glutamine ABC transporter		yes	ABC				
Transp_097	SPO3339 bioY family protein		yes	bioY				
Transp_098	SPO3378 benzoate transporter		yes	BenE				
Transp_099	SPO3466-3469 putrescine ABC transporter	<i>potFGHI</i>	yes	ABC	Spermidine, c spermidine		Expression	Mou et al 2010
Transp_100	SPO3472-3475 polyamine ABC transporter		yes	ABC				
Transp_101	SPO3534-3537 oligopeptide/dipeptide uptake family ABC transporter		yes	ABC				
Transp_102	SPO3618-3620 sulfonate ABC transporter		yes	ABC				
Transp_103	SPO3643 DMT		yes	DMT				
Transp_104	SPO3662-3665 hypothetical protein		yes	TRAP				
Transp_105	SPO3693-3695 TRAP dicarboxylate transporter		yes	TRAP				
Transp_106	SPO3705-3709 branched-chain amino acid ABC transporter		yes	ABC				
Transp_107	SPO3774-3778 oligopeptide/dipeptide ABC transporter		yes	ABC				
Transp_108	SPO3783-3787 sugar ABC transporter		yes	ABC				

Transp_109	SPO3843 malonate transporter, putative		AEC
Transp_110	SPOA0068-0071 polar amino acid ABC transporter		ABC
Transp_111	SPOA0097-0101 branched-chain amino acid ABC transporter		ABC
Transp_112	SPOA0118-0120 hypothetical protein		TTT
Transp_113	SPOA0160-0162 TRAP dicarboxylate transporter		TRAP
Transp_114	SPOA0166-0167 TRAP transporter solute receptor TAXI family protein	yes	TRAP
Transp_115	SPOA0231-0233 glycine betaine/proline ABC transporter	yes	ABC
Transp_116	SPOA0238-0240 TRAP dicarboxylate transporter		TRAP
Transp_117	SPOA0249-0251 TRAP dicarboxylate transporter	yes	TRAP
Transp_118	SPOA0253-0258 ribose ABC transporter	yes	ABC
Transp_119	SPOA0263-0265 TRAP transporter	yes	TRAP
Transp_120	SPOA0278-0280 TRAP dicarboxylate transporter	yes	TRAP
Transp_121	SPOA0296-0300 branched-chain amino acid ABC transporter	yes	ABC
Transp_122	SPOA0333-0335 TRAP dicarboxylate transporter	yes	TRAP
Transp_123	SPOA0349 DMT family transporter	yes	DMT
Transp_124	SPOA0366-03667 amino acid permease	yes	APC
Transp_125	SPOA0372-0374 TRAP dicarboxylate transporter	yes	TRAP
Transp_126	SPOA0381-0384 spermidine/putrescine ABC transporter	yes	ABC