

Supplementary Table 2. Relative contribution of prokaryotic groups to pathway specific transcripts. For each group, mean value \pm standard deviation of 2 replicates are shown. Error estimates are provided for all prokaryotic groups illustrated in Figures 2 & 3, and groups are listed by alphabetic order.

Station	Prokaryotic group	Aconitase	F ²⁺ uptake	F ³⁺ uptake	Flavodoxin switch	Bacterioferritin	Isocitrate lyase	Siderophore uptake
A3_2	Actinomycetaceae	0	0	1.9 \pm 0.09	0	0	0	0
A3_2	Aeromonadaceae	0	0	0	3.33 \pm 0.16	0	0	0
A3_2	Alcanivoracaceae	0	0	0	5.18 \pm 0.07	0	0	0
A3_2	Alteromonadaceae	3.11 \pm 0.06	0	0	1.48 \pm 0.21	5.04 \pm 0.82	5.45 \pm 0.26	13.17 \pm 0.25
A3_2	Aphanizomenonaceae	0	0	0	4.37 \pm 0.24	0	0	0
A3_2	Archaea	0	2.42 \pm 0.13	6.15 \pm 0.19	2.33 \pm 0.04	1.74 \pm 0.21	0	0.26 \pm 0.01
A3_2	Bacillaceae	0	0	2.63 \pm 0.11	0	0	0	0
A3_2	Burkholderiaceae	2.49 \pm 0.14	0	0	0	0	7.45 \pm 0.65	1.12 \pm 0.01
A3_2	Cellvibrionaceae	0	0	0	2.55 \pm 0.12	4.08 \pm 0.05	0	8.81 \pm 0.14
A3_2	Chromatiaceae	0	0	2.92 \pm 0.34	0	0	0	0
A3_2	Chromobacteriaceae	0	0	0	0	1.72 \pm 0.48	0	0
A3_2	Colwelliaceae	0	0	0	0	0	0.31 \pm 0.11	0
A3_2	Coriobacteriaceae	0	0.6 \pm 0.06	0	0	0	0	0
A3_2	Corynebacterineae	0	0	0	0	0	7.65 \pm 0.04	0
A3_2	Crocinitomicaceae	0	0	0	0	2.7 \pm 0.49	0	0
A3_2	Enterobacteriaceae	1.17 \pm 0.02	18.72 \pm 0.51	0	1.94 \pm 0.09	0.98 \pm 0.36	0	0

A3_2	Erythrobacteraceae	0	0	0	0	0	0	3.52 ± 1.37
A3_2	FCB cluster	8.03 ± 0.38	4.25 ± 0.37	2.88 ± 0.06	2.96 ± 0.17	1.09 ± 0.21	1.1 ± 0.16	8.87 ± 0.54
A3_2	Flavobacteriaceae	12.78 ± 0.69	10.79 ± 1.65	2.04 ± 0.01	0	13.97 ± 0.28	2.33 ± 0.17	15.95 ± 1.49
A3_2	Haliaceae	0	0	0	0	9.83 ± 0.15	0	0
A3_2	Moraxellaceae	0	0	0	0	0	9.53 ± 0.34	0
A3_2	Nitrosomonadaceae	0.18 ± 0.05	0	0	3.07 ± 0.16	0	0	0
A3_2	Oceanospirillaceae	0.98 ± 0.11	0	0	0	1.32 ± 0.11	0.76 ± 0.28	0.47 ± 0.01
A3_2	Other	10.13 ± 0.23	14.12 ± 0.1	10.13 ± 0.42	16.24 ± 0.13	5.83 ± 0.31	9.44 ± 0.4	8.04 ± 0.67
A3_2	other Actinobacteria	11.05 ± 0.26	3.1 ± 0.17	9.5 ± 0.08	3.34 ± 0.02	1.94 ± 0.09	8.55 ± 0.02	0.88 ± 0.06
A3_2	other Alphaproteobacteria	10.4 ± 0.3	6.25 ± 0.15	5.55 ± 0.64	7.46 ± 0.05	5.59 ± 0.52	11.04 ± 0.18	7 ± 0.25
A3_2	other Betaproteobacteria	5.22 ± 0.2	2.21 ± 0.43	4.78 ± 0.25	4.92 ± 0.07	6.88 ± 0.45	6.34 ± 0.34	1.56 ± 0.08
A3_2	other Cyanobacteria	0.74 ± 0.06	0.78 ± 0.13	3.44 ± 0.04	1.15 ± 0.05	2.12 ± 0.64	0.09 ± 0.05	0.94 ± 0.01
A3_2	other Gammaproteobacteria	17.96 ± 0.23	14.19 ± 0.91	11.62 ± 0.49	16.05 ± 0.29	14.49 ± 1.61	14.59 ± 0.4	12.65 ± 0.14
A3_2	other Proteobacteria	3.36 ± 0.22	3.21 ± 0.04	0.3 ± 0.06	6.04 ± 0.04	3.35 ± 0.26	2.24 ± 0.14	1.41 ± 0.01
A3_2	Oxalobacteraceae	1.03 ± 0.18	0	0	0	0	0	0
A3_2	Pelagibacteraceae	5.84 ± 0.44	0	0	0	0	6.37 ± 0.15	0

A3_2	Phyllobacteriaceae	0	0	3.16 ± 0.15	0	0	0	0
A3_2	Piscirickettsiaceae	0	0	2.81 ± 0.03	0	0	0	0
A3_2	Prochloraceae	0	0	3.05 ± 0.1	1.46 ± 0.35	0	0	0
A3_2	Pseudoalteromonadaceae	2.04 ± 0.19	1.18 ± 0.03	0	0	0	6.88 ± 0.09	1.89 ± 0.06
A3_2	Pseudomonadaceae	0	0	5.74 ± 0.03	2.66 ± 0.07	3.71 ± 0.41	0	0
A3_2	Rhizobiaceae	0	0	2.43 ± 0.13	0	0	0	0
A3_2	Rhodobacteraceae	0	8.34 ± 0.23	15.37 ± 0.4	0	2.84 ± 0.11	0	0
A3_2	SAR86	3.58 ± 0.02	0	0	0	0	0	0
A3_2	Shewanellaceae	0	5.92 ± 0.33	2.22 ± 0.03	8.08 ± 0.12	1.71 ± 0.32	0	10.97 ± 0.41
A3_2	Sphingomonadaceae	0	0	0	0	0	0	2.57 ± 0.1
A3_2	Synechococcaceae	0	1.36 ± 0.06	1.5 ± 0.15	5.48 ± 0.18	9.16 ± 0.13	0	0
A3_2	Yersiniaceae	0	2.65 ± 0.08	0	0	0	0	0
FL	Actinomycetaceae	0	0	1.93 ± 0.08	0	0	0	0
FL	Aeromonadaceae	0	0	0	4.67 ± 0.47	0	0	0
FL	Alcanivoracaceae	0	0	0	7.68 ± 0.55	0	0	0
FL	Alteromonadaceae	2.76 ± 0.22	0	0	2.65 ± 0.33	8.74 ± 0.67	6.79 ± 0.09	12.41 ± 0.31
FL	Aphanizomenonaceae	0	0	0	2.57 ± 0.53	0	0	0
FL	Archaea	0	2.86 ± 0.44	6.01 ± 0.28	1.74 ± 0.19	1.26 ± 0.08	0	0.44 ± 0.03

FL	Bacillaceae	0	0	2.93 ± 0.25	0	0	0	0
FL	Burkholderiaceae	2.37 ± 0.25	0	0	0	0	4.31 ± 0.09	1.5 ± 0.05
FL	Cellvibrionaceae	0	0	0	3.17 ± 0.18	4.2 ± 0.12	0	5.18 ± 0.11
FL	Chromatiaceae	0	0	1.64 ± 0.29	0	0	0	0
FL	Chromobacteriaceae	0	0	0	0	1.9 ± 0.35	0	0
FL	Colwelliaceae	0	0	0	0	0	5.92 ± 0.66	0
FL	Coriobacteriaceae	0	0.62 ± 0.21	0	0	0	0	0
FL	Corynebacterineae	0	0	0	0	0	2.3 ± 0.17	0
FL	Crocinitomicaceae	0	0	0	0	4.81 ± 0.97	0	0
FL	Enterobacteriaceae	4.61 ± 0.37	14.67 ± 0.18	0	1.3 ± 0.01	0.83 ± 0.04	0	0
FL	Erythrobacteraceae	0	0	0	0	0	0	3.94 ± 0.97
FL	FCB cluster	4.22 ± 0.5	4.95 ± 0.12	3.09 ± 0.11	2.43 ± 0.3	0.66 ± 0.03	0.36 ± 0.03	12.6 ± 0.63
FL	Flavobacteriaceae	7.38 ± 0.34	8.84 ± 0.38	2.14 ± 0.14	0	11.44 ± 0.65	0.72 ± 0.05	13.55 ± 0.94
FL	Haliaceae	0	0	0	0	9.28 ± 0.86	0	0
FL	Moraxellaceae	0	0	0	0	0	7.57 ± 0.92	0
FL	Nitrosomonadaceae	13.99 ± 1.42	0	0	3.96 ± 0.83	0	0	0
FL	Oceanospirillaceae	3.55 ± 0.34	0	0	0	4.36 ± 0.35	11.47 ± 0.47	0.82 ± 0.04
FL	Other	6.72 ± 0.07	13.71 ± 0.57	9.53 ± 0.17	12.93 ± 0.06	5.15 ± 0.93	7.73 ± 0.11	7.31 ± 0.17

FL	other Actinobacteria	7.46 ± 0.12	3.8 ± 0.04	8.72 ± 0.02	2.74 ± 0.38	0.9 ± 0.11	2.97 ± 0.1	1.22 ± 0.02
FL	other Alphaproteobacteria	8.14 ± 0.97	6.09 ± 0.24	5.81 ± 0.21	3.58 ± 0.5	4.58 ± 0.3	7.34 ± 0.04	7.23 ± 0.01
FL	other Betaproteobacteria	3.26 ± 0.05	5.77 ± 0.08	4.96 ± 0.12	6.24 ± 0.39	4.31 ± 0.25	8.05 ± 1.3	1.83 ± 0.07
FL	other Cyanobacteria	0.5 ± 0.02	1.06 ± 0.18	2.9 ± 0.18	1.41 ± 0.21	4.04 ± 0.38	0.03 ± 0.01	1.38 ± 0.06
FL	other Gammaproteobacteria	12.76 ± 0.38	15.74 ± 0.05	11.07 ± 0.04	13.12 ± 0.22	9.97 ± 0.9	25.6 ± 1.03	13.57 ± 0.21
FL	other Proteobacteria	1.79 ± 0.13	2.84 ± 0.36	0.25 ± 0.02	9.19 ± 0.51	1.36 ± 0.33	0.86 ± 0.03	1.56 ± 0.01
FL	Oxalobacteraceae	12.22 ± 1.55	0	0	0	0	0	0
FL	Pelagibacteraceae	4.09 ± 0.22	0	0	0	0	2.56 ± 0.03	0
FL	Phyllobacteriaceae	0	0	3.78 ± 0.05	0	0	0	0
FL	Piscirickettsiaceae	0	0	2.27 ± 0.08	0	0	0	0
FL	Prochloraceae	0	0	3.06 ± 0.01	1.58 ± 0.11	0	0	0
FL	Pseudoalteromonadaceae	1.84 ± 0.1	1.02 ± 0.06	0	0	0	5.5 ± 0.11	1.4 ± 0.02
FL	Pseudomonadaceae	0	0	4.6 ± 0.16	4.15 ± 0.35	7.88 ± 0.68	0	0
FL	Rhizobiaceae	0	0	2.37 ± 0.02	0	0	0	0
FL	Rhodobacteraceae	0	11.47 ± 1.07	18.96 ± 0.76	0	5.14 ± 0.27	0	0
FL	SAR86	2.43 ± 0.08	0	0	0	0	0	0

FL	Shewanellaceae	0	2.91 ± 0.36	2.34 ± 0.13	9.47 ± 0.4	4.02 ± 0.33	0	10.81 ± 0.32
FL	Sphingomonadaceae	0	0	0	0	0	0	3.34 ± 0.05
FL	Synechococcaceae	0	1.32 ± 0.13	1.75 ± 0.03	5.52 ± 0.68	5.26 ± 0.6	0	0
FL	Yersiniaceae	0	2.42 ± 0.02	0	0	0	0	0
R2	Actinomycetaceae	0	0	1.88 ± 0.1	0	0	0	0
R2	Aeromonadaceae	0	0	0	2.37 ± 0.08	0	0	0
R2	Alcanivoracaceae	0	0	0	3.91 ± 0.57	0	0	0
R2	Alteromonadaceae	2.36 ± 0.07	0	0	1.13 ± 0.34	3.51 ± 0.61	3.09 ± 0.6	10.23 ± 0.87
R2	Aphanizomenonaceae	0	0	0	13.61 ± 0.15	0	0	0
R2	Archaea	0	3.46 ± 0.13	5.64 ± 0.12	1.02 ± 0.21	4.35 ± 0.79	0	0.64 ± 0.04
R2	Bacillaceae	0	0	2.23 ± 0.18	0	0	0	0
R2	Burkholderiaceae	3.74 ± 0.18	0	0	0	0	39.68 ± 6.11	1.41 ± 0.05
R2	Cellvibrionaceae	0	0	0	2.06 ± 0.4	13.02 ± 12.37	0	5.45 ± 0.12
R2	Chromatiaceae	0	0	3.5 ± 0.1	0	0	0	0
R2	Chromobacteriaceae	0	0	0	0	1.74 ± 0.09	0	0
R2	Colwelliaceae	0	0	0	0	0	0.07 ± 0.03	0
R2	Coriobacteriaceae	0	3.15 ± 0.61	0	0	0	0	0
R2	Corynebacterineae	0	0	0	0	0	3.39 ± 0.23	0
R2	Crocinitomicaceae	0	0	0	0	4.52 ± 1.45	0	0

R2	Enterobacteriaceae	1.1 ± 0.09	5.35 ± 0.04	0	4.04 ± 0.19	7.33 ± 1.12	0	0
R2	Erythrobacteraceae	0	0	0	0	0	0	1.68 ± 0.36
R2	FCB cluster	5.96 ± 0.32	3.93 ± 0.12	2.84 ± 0.13	2.21 ± 0.34	1.41 ± 0.49	0.37 ± 0.15	12.57 ± 0.13
R2	Flavobacteriaceae	9.61 ± 2.28	6.56 ± 1.09	3.48 ± 0.17	0	15.91 ± 2.37	1.15 ± 0.2	12.24 ± 0.44
R2	Haliaceae	0	0	0	0	2.16 ± 0.8	0	0
R2	Moraxellaceae	0	0	0	0	0	0.88 ± 0.03	0
R2	Nitrosomonadaceae	0.82 ± 0.11	0	0	1.57 ± 0.07	0	0	0
R2	Oceanospirillaceae	0.88 ± 0.04	0	0	0	0.7 ± 0.19	0.23 ± 0.03	2.02 ± 0.15
R2	Other	14.91 ± 0.03	12.59 ± 0.41	11.06 ± 0.04	6.32 ± 1.04	5.59 ± 0.07	5.31 ± 0.27	7.46 ± 0.36
R2	other Actinobacteria	12.99 ± 0.01	3.08 ± 0.11	8.28 ± 0.07	1.43 ± 0.05	5.26 ± 0.67	6.65 ± 2.05	1.39 ± 0.14
R2	other Alphaproteobacteria	7.71 ± 0.6	4.79 ± 0.25	7.49 ± 0.13	1.11 ± 0.06	7.43 ± 1.64	6.82 ± 0.88	8.52 ± 0.15
R2	other Betaproteobacteria	6.44 ± 0.61	3.04 ± 0.03	4.65 ± 0.22	5.26 ± 0.13	4.72 ± 1.51	4.26 ± 0.15	1.86 ± 0.11
R2	other Cyanobacteria	0.98 ± 0.08	1.42 ± 0.28	2.56 ± 0.14	6.37 ± 0.42	0.92 ± 0.01	0.08 ± 0.01	1.76 ± 0.47
R2	other Gammaproteobacteria	14.69 ± 0.04	13.04 ± 0.44	9.96 ± 0.26	10.35 ± 1.09	7.8 ± 0.99	13.69 ± 1.85	15.29 ± 0.06
R2	other Proteobacteria	3.66 ± 0.15	2.67 ± 0.06	0.48 ± 0.01	4.44 ± 0.48	1.36 ± 0.63	1.85 ± 0.32	1.66 ± 0.07
R2	Oxalobacteraceae	1.2 ± 0.13	0	0	0	0	0	0
R2	Pelagibacteraceae	9.63 ± 0.35	0	0	0	0	9.11 ± 0.07	0

R2	Phyllobacteriaceae	0	0	6.69 ± 0.22	0	0	0	0
R2	Piscirickettsiaceae	0	0	2.52 ± 0.25	0	0	0	0
R2	Prochloraceae	0	0	4.18 ± 0.29	8.05 ± 0.39	0	0	0
R2	Pseudoalteromonadaceae	0.86 ± 0.05	1.11 ± 0.08	0	0	0	3.44 ± 0.23	3.33 ± 0.15
R2	Pseudomonadaceae	0	0	4.28 ± 0.14	0.82 ± 0.01	1.28 ± 0.41	0	0
R2	Rhizobiaceae	0	0	2.44 ± 0.21	0	0	0	0
R2	Rhodobacteraceae	0	9.18 ± 0.58	12.49 ± 0.33	0	1.88 ± 0.45	0	0
R2	SAR86	2.56 ± 0.46	0	0	0	0	0	0
R2	Shewanellaceae	0	23.28 ± 1.11	1.24 ± 0.1	6.65 ± 0.24	0.65 ± 0.12	0	8.14 ± 0.54
R2	Sphingomonadaceae	0	0	0	0	0	0	4.42 ± 0.12
R2	Synechococcaceae	0	1.12 ± 0.07	2.21 ± 0.04	17.36 ± 1.73	8.56 ± 2.87	0	0
R2	Yersiniaceae	0	2.31 ± 0.65	0	0	0	0	0