

Supplementary Table 3. Taxa-specific transcript abundance (per 10^5 cells) of a given pathway at Station F-L and R-2. For each group, mean value \pm standard deviation of 2 replicates are shown. Error estimates are provided for all prokaryotic groups illustrated in Figures 6, and groups are listed by alphabetic order.

Station	Species	Pathway	Mean \pm SD
F-L	Actinomycetales	Aconitase	433.5 \pm 55.87
F-L	Actinomycetales	F2+ uptake	39.81 \pm 1.46
F-L	Actinomycetales	F3+ uptake	246.32 \pm 14.14
F-L	Actinomycetales	Flavodoxin switch	9.4 \pm 1.28
F-L	Actinomycetales	Isocitrate lyase	317 \pm 7.08
F-L	Actinomycetales	Ribosomal proteins	24.1 \pm 0.43
F-L	Actinomycetales	Siderophore uptake	2.09 \pm 0.25
F-L	Alteromonadales	Aconitase	2804.42 \pm 4.66
F-L	Alteromonadales	F2+ uptake	975.05 \pm 29.47
F-L	Alteromonadales	F3+ uptake	1617.63 \pm 24.8
F-L	Alteromonadales	Flavodoxin switch	961.79 \pm 23.12
F-L	Alteromonadales	Isocitrate lyase	6742.55 \pm 413.26
F-L	Alteromonadales	Ribosomal proteins	93235.65 \pm 1342.4
F-L	Alteromonadales	Bacterioferritin	624.06 \pm 8.33
F-L	Alteromonadales	Siderophore uptake	28433.39 \pm 1163.07
F-L	Burkholderiales	Aconitase	146820 \pm 21094.74
F-L	Burkholderiales	F2+ uptake	4002.1 \pm 522.9
F-L	Burkholderiales	F3+ uptake	48495.46 \pm 882.19
F-L	Burkholderiales	Flavodoxin switch	3505.73 \pm 544.77
F-L	Burkholderiales	Isocitrate lyase	62830.09 \pm 4936.64
F-L	Burkholderiales	Ribosomal proteins	314522.75 \pm 48995.2
F-L	Burkholderiales	Bacterioferritin	2895.88 \pm 107.54
F-L	Burkholderiales	Siderophore uptake	51850.49 \pm 2905.22
F-L	Flavobacteriales	Aconitase	618 \pm 2.83
F-L	Flavobacteriales	F2+ uptake	145.98 \pm 7.65
F-L	Flavobacteriales	F3+ uptake	247.73 \pm 21.77
F-L	Flavobacteriales	Flavodoxin switch	1.58 \pm 0.59
F-L	Flavobacteriales	Isocitrate lyase	29.32 \pm 1.95

F-L	Flavobacteriales	Ribosomal proteins	15925.98 ± 1438.44
F-L	Flavobacteriales	Bacterioferritin	85.51 ± 13.5
F-L	Flavobacteriales	Siderophore uptake	1809.17 ± 84.7
F-L	Oceanospirillales	Aconitase	1167.52 ± 0.07
F-L	Oceanospirillales	F2+ uptake	53.27 ± 1.51
F-L	Oceanospirillales	F3+ uptake	215.21 ± 12.69
F-L	Oceanospirillales	Flavodoxin switch	176.71 ± 6.33
F-L	Oceanospirillales	Isocitrate lyase	1239.78 ± 46.2
F-L	Oceanospirillales	Ribosomal proteins	40928.03 ± 290.1
F-L	Oceanospirillales	Bacterioferritin	101.06 ± 10.67
F-L	Oceanospirillales	Siderophore uptake	437.12 ± 2.45
F-L	Pelagibacterales	Aconitase	31.2 ± 0.43
F-L	Pelagibacterales	F3+ uptake	21.94 ± 1.08
F-L	Pelagibacterales	Isocitrate lyase	12.1 ± 0
F-L	Pelagibacterales	Ribosomal proteins	444.63 ± 4.14
F-L	Pseudomonadales	Aconitase	7598.56 ± 707.9
F-L	Pseudomonadales	F2+ uptake	2950.06 ± 291.64
F-L	Pseudomonadales	F3+ uptake	18795.22 ± 1129.27
F-L	Pseudomonadales	Flavodoxin switch	1675.58 ± 308.57
F-L	Pseudomonadales	Isocitrate lyase	40737.78 ± 1594.53
F-L	Pseudomonadales	Ribosomal proteins	441176.88 ± 3248.82
F-L	Pseudomonadales	Bacterioferritin	2417.7 ± 117.73
F-L	Pseudomonadales	Siderophore uptake	30927.55 ± 129.2
F-L	Rhodobacterales	Aconitase	155.47 ± 16.66
F-L	Rhodobacterales	F2+ uptake	80.35 ± 8
F-L	Rhodobacterales	F3+ uptake	461.17 ± 30.76
F-L	Rhodobacterales	Flavodoxin switch	8.9 ± 0.78
F-L	Rhodobacterales	Isocitrate lyase	40.91 ± 6.87
F-L	Rhodobacterales	Ribosomal proteins	4508.99 ± 712.13
F-L	Rhodobacterales	Bacterioferritin	21.15 ± 2.62
F-L	Rhodobacterales	Siderophore uptake	78.39 ± 0.19
F-L	Synechococcales	Aconitase	258.87 ± 17.67
F-L	Synechococcales	F2+ uptake	266.41 ± 32.84

F-L	Synechococcales	F3+ uptake	2748.01 ± 16.98
F-L	Synechococcales	Flavodoxin switch	563.17 ± 60.54
F-L	Synechococcales	Ribosomal proteins	105576.5 ± 6701.15
F-L	Synechococcales	Bacterioferritin	343.67 ± 30.96
F-L	Synechococcales	Siderophore uptake	1011.01 ± 30
R-2	Actinomycetales	Aconitase	42193.15 ± 5722.64
R-2	Actinomycetales	F2+ uptake	3194.07 ± 308.89
R-2	Actinomycetales	F3+ uptake	18782.59 ± 1570.95
R-2	Actinomycetales	Flavodoxin switch	617.87 ± 117.26
R-2	Actinomycetales	Isocitrate lyase	35417.43 ± 2302.06
R-2	Actinomycetales	Ribosomal proteins	5095.92 ± 161.52
R-2	Actinomycetales	Siderophore uptake	272.33 ± 40.42
R-2	Alteromonadales	Aconitase	71008.88 ± 10653.34
R-2	Alteromonadales	F2+ uptake	176175.89 ± 7129.55
R-2	Alteromonadales	F3+ uptake	52198.77 ± 161.71
R-2	Alteromonadales	Flavodoxin switch	47663.54 ± 4736.17
R-2	Alteromonadales	Isocitrate lyase	99877.15 ± 10599.23
R-2	Alteromonadales	Ribosomal proteins	275256.83 ± 8632.97
R-2	Alteromonadales	Bacterioferritin	7273.67 ± 136.36
R-2	Alteromonadales	Siderophore uptake	1082336.94 ± 46623.43
R-2	Burkholderiales	Aconitase	114020.04 ± 1920.06
R-2	Burkholderiales	F2+ uptake	8350.3 ± 823.95
R-2	Burkholderiales	F3+ uptake	105845.73 ± 1467.22
R-2	Burkholderiales	Flavodoxin switch	11413.09 ± 1024.97
R-2	Burkholderiales	Isocitrate lyase	427429.08 ± 66848.53
R-2	Burkholderiales	Ribosomal proteins	138255.51 ± 9595.33
R-2	Burkholderiales	Bacterioferritin	6040.08 ± 1212.87
R-2	Burkholderiales	Siderophore uptake	99233.46 ± 1133.47
R-2	Flavobacteriales	Aconitase	4657.41 ± 1319.02
R-2	Flavobacteriales	F2+ uptake	1117.31 ± 279.88
R-2	Flavobacteriales	F3+ uptake	2802.47 ± 173.62
R-2	Flavobacteriales	Flavodoxin switch	53.45 ± 40.38
R-2	Flavobacteriales	Isocitrate lyase	322.85 ± 47.01

R-2	Flavobacteriales	Ribosomal proteins	58880.52 ± 1988.95
R-2	Flavobacteriales	Bacterioferritin	862.24 ± 44.98
R-2	Flavobacteriales	Siderophore uptake	13630.66 ± 752.65
R-2	Oceanospirillales	Aconitase	4052.72 ± 426.93
R-2	Oceanospirillales	F2+ uptake	390.74 ± 104.7
R-2	Oceanospirillales	F3+ uptake	1541.95 ± 22.16
R-2	Oceanospirillales	Flavodoxin switch	1414.24 ± 158.46
R-2	Oceanospirillales	Iso	969.54 ± 221.75
R-2	Oceanospirillales	Ribosomal proteins	21389.3 ± 671.28
R-2	Oceanospirillales	Bacterioferritin	335.14 ± 53.06
R-2	Oceanospirillales	Siderophore uptake	6786.09 ± 801.14
R-2	Pelagibacterales	Aconitase	259.79 ± 18.48
R-2	Pelagibacterales	F3+ uptake	537.07 ± 26.72
R-2	Pelagibacterales	Isocitrate lyase	184.85 ± 0
R-2	Pelagibacterales	Ribosomal proteins	4193.84 ± 261.32
R-2	Pseudomonadales	Aconitase	1619.08 ± 34.74
R-2	Pseudomonadales	F2+ uptake	645.59 ± 266.08
R-2	Pseudomonadales	F3+ uptake	14064.86 ± 1143.46
R-2	Pseudomonadales	Flavodoxin switch	771.49 ± 37.5
R-2	Pseudomonadales	Isocitrate lyase	6623.61 ± 587.56
R-2	Pseudomonadales	Ribosomal proteins	47072.01 ± 805.73
R-2	Pseudomonadales	Bacterioferritin	354.52 ± 20.8
R-2	Pseudomonadales	Siderophore uptake	25575.43 ± 921.16
R-2	Rhodobacterales	Aconitase	5404.12 ± 67.84
R-2	Rhodobacterales	F2+ uptake	5531.83 ± 155.66
R-2	Rhodobacterales	F3+ uptake	22151.77 ± 1272.97
R-2	Rhodobacterales	Flavodoxin switch	400.02 ± 17.43
R-2	Rhodobacterales	Isocitrate lyase	708.99 ± 77.04
R-2	Rhodobacterales	Ribosomal proteins	78689.53 ± 2421.74
R-2	Rhodobacterales	Bacterioferritin	930.15 ± 100.77
R-2	Rhodobacterales	Siderophore uptake	5932.9 ± 680.68
R-2	Synechococcales	Aconitase	4082.61 ± 80.74
R-2	Synechococcales	F2+ uptake	3334.5 ± 389.07

R-2	Synechococcales	F3+ uptake	45383.65 ± 1140.23
R-2	Synechococcales	Flavodoxin switch	59113.52 ± 3779.32
R-2	Synechococcales	Ribosomal proteins	966188.35 ± 321.28
R-2	Synechococcales	Bacterioferritin	4810.25 ± 484.25
R-2	Synechococcales	Siderophore uptake	11052.27 ± 1219