

Table S1. Primers used in this work

Gene		Sequence (5' -> 3')
<i>SbSAND</i>	F	TCAGAGCTGGCAAACATCAG
	R	CAACAACCTGACCATACATGAGC
<i>SbActin</i>	F	TCACCATCGGGCAGAG
	R	GGGAGGCAAGGATGGAC
<i>SbPPC1</i>	F	CAGCTTCGTTTCGCGCTTCCC
	R	TCGTAGCACTCCTGGACAAATTCG
<i>SbPPC2</i>	F	CCGCCTCGCAACACCTGAAACA
	R	ACCGGGAGGTGGAACCGTGT
<i>SbPPC3</i>	F	TGTTGAACAGTTTCTGGAACCTCTT
	R	GCTTCACAAGGGCAAGCCAAAAG
<i>SbPPC4</i>	F	TGAGCTTCGGGCACAAGCAGATG
	R	GCTCCAAAGGCTCTAAGAACTGCTC
<i>SbPPC5</i>	F	GGACATCAGGGAGACGGTGCAAGA
	R	GCGATCCCAGTCGGTCAGCA
<i>SbPPC6</i>	F	ACCACAGGGTTCGTAAAGCACGC
	R	TGGCTTAGATCAGGGCGACCGTT
<i>SbGS1;1</i>	F	AGGAGCCCTGGTACGGTATT
	R	AATGACTTGTCCGCACCGAT
<i>SbGS1;2</i>	F	CTGCCGGTGACGAAATA
	R	TTCCAGTCACCCTGGATTG
<i>SbGS1;3</i>	F	GCCGAGTACATCTGGGTTGG
	R	GTCTCTGAAGATGGCCCGAG
<i>SbGS2</i>	F	GACCTTCTCATGGGGTGTGG
	R	TTGTTTCAGCCAGTAGCCCC
<i>SbGDH1</i>	F	AGGGAGATCAAGGTTGAATG
	R	GTCCCCTAGCGTTGTCATGT
<i>SbGDH2</i>	F	CACAGGCAAGCCAATTGATC
	R	TAGAGCCTCGGTCGCATACA

Table S2. Data corresponding to the metabolic parameters analyzed in *P.*

NH_4^+ (nmol · mg FW ⁻¹)	WT <i>Ppc3-1</i> <i>Ppc3-2</i>
Total free aminoacids (nmol Gln · mg FW ⁻¹)	WT <i>Ppc3-1</i> <i>Ppc3-2</i>
GS activity (nmol Y-GHM · mg FW ⁻¹ · min ⁻¹)	WT <i>Ppc3-1</i> <i>Ppc3-2</i>
GDH activity (nmol NADH · mg FW ⁻¹ · min ⁻¹)	WT <i>Ppc3-1</i> <i>Ppc3-2</i>
3PGA (μmol · g FW ⁻¹)	WT <i>Ppc3-1</i> <i>Ppc3-2</i>
Citrate (μmol · g FW ⁻¹)	WT <i>Ppc3-1</i> <i>Ppc3-2</i>
Isocitrate (μmol · g FW ⁻¹)	WT <i>Ppc3-1</i> <i>Ppc3-2</i>
2-oxoglutarate (μmol · g FW ⁻¹)	WT <i>Ppc3-1</i> <i>Ppc3-2</i>
Malate (μmol · g FW ⁻¹)	WT <i>Ppc3-1</i> <i>Ppc3-2</i>
Phosphoenol pyruvate (μmol · g FW ⁻¹)	WT <i>Ppc3-1</i> <i>Ppc3-2</i>
Aconitase (nmol NADH · mg FW ⁻¹ · min ⁻¹)	WT <i>Ppc3-1</i> <i>Ppc3-2</i>
Citrate synthase (nmol CoA · mg FW ⁻¹ · min ⁻¹)	WT <i>Ppc3-1</i> <i>Ppc3-2</i>
Isocitrate synthase (nmol NADH · mg FW ⁻¹ · min ⁻¹)	WT <i>Ppc3-1</i> <i>Ppc3-2</i>
Malate dehydrogenase (nmol NADH · mg FW ⁻¹ · min ⁻¹)	WT <i>Ppc3-1</i> <i>Ppc3-2</i>

NAD-Malic enzyme (nmol NADH · mg FW ⁻¹ · min ⁻¹)	WT <i>Ppc3-1</i> <i>Ppc3-2</i>
NADP-Malic enzyme (nmol NADH · mg FW ⁻¹ · min ⁻¹)	WT <i>Ppc3-1</i> <i>Ppc3-2</i>
Phosphoenol pyruvate carboxylase (nmol NADH · mg FW ⁻¹ · min ⁻¹)	WT <i>Ppc3-1</i> <i>Ppc3-2</i>
Phosphoenol pyruvate carboxykinase (nmol NADH · mg FW ⁻¹ · min ⁻¹)	WT <i>Ppc3-1</i> <i>Ppc3-2</i>
Pyruvate kinase (nmol NADH · mg FW ⁻¹ · min ⁻¹)	WT <i>Ppc3-1</i> <i>Ppc3-2</i>

pc3-1 and *Ppc3-2* lines. n.d. means not detected.

Leaf				Root			
NO ₃ ⁻		NH ₄ ⁺		NO ₃ ⁻		NH ₄ ⁺	
Average	SEM	Average	SEM	Average	SEM	Average	SEM
28.346	0.512	29.697	0.950	3.832	0.178	6.377	0.408
28.408	0.394	30.554	0.501	3.991	0.515	10.220	1.629
29.315	0.705	32.123	0.893	3.912	0.199	18.189	2.813
3.042	0.049	3.222	0.024	1.826	0.030	2.315	0.145
2.863	0.036	3.006	0.030	1.861	0.058	2.936	0.054
2.917	0.047	2.876	0.046	2.007	0.059	2.633	0.078
0.041	0.003	0.041	0.007	0.030	0.002	0.044	0.003
0.034	0.007	0.023	0.004	0.034	0.006	0.045	0.008
0.044	0.008	0.016	0.003	0.036	0.002	0.034	0.003
0.242	0.021	0.198	0.010	0.458	0.068	0.710	0.034
0.262	0.022	0.293	0.027	0.550	0.029	0.835	0.050
0.266	0.009	0.275	0.020	0.406	0.049	0.876	0.034
0.057	0.014	0.067	0.014	<i>n.d</i>		0.014	0.002
0.085	0.020	0.070	0.007	0.009	0.000	<i>n.d</i>	
0.044	0.009	0.295	0.033	0.008	0.001	0.025	0.003
0.999	0.090	0.450	0.037	0.007	0.001	<i>n.d</i>	
1.398	0.136	0.519	0.045	0.009	0.001	0.008	0.001
1.331	0.100	0.575	0.062	0.007	0.000	0.013	0.002
<i>n.d</i>		<i>n.d</i>		0.749	0.055	<i>n.d</i>	
<i>n.d</i>		<i>n.d</i>		0.875	0.217	0.629	0.052
<i>n.d</i>		<i>n.d</i>		0.787	0.083	1.126	0.126
0.582	0.019	0.183	0.003	<i>n.d</i>		<i>n.d</i>	
0.760	0.078	0.289	0.034	<i>n.d</i>		<i>n.d</i>	
0.620	0.047	0.285	0.024	<i>n.d</i>		<i>n.d</i>	
5.416	0.272	1.570	0.041	1.733	0.012	1.002	0.056
6.493	0.202	1.955	0.043	1.811	0.247	1.718	0.131
7.740	0.553	2.292	0.084	1.295	0.104	1.554	0.105
0.916	0.046	0.189	0.027	0.159	0.014	0.018	0.001
1.177	0.079	0.177	0.048	0.184	0.056	0.074	0.018
1.040	0.060	0.202	0.026	0.195	0.025	0.164	0.027
<i>n.d</i>		<i>n.d</i>		0.119	0.027	0.094	0.016
<i>n.d</i>		<i>n.d</i>		0.166	0.027	0.225	0.055
<i>n.d</i>		<i>n.d</i>		0.176	0.022	0.236	0.032
0.083	0.004	0.075	0.005	0.156	0.017	0.249	0.012
0.094	0.005	0.086	0.009	0.192	0.018	0.347	0.036
0.091	0.007	0.083	0.004	0.179	0.023	0.365	0.030
0.385	0.031	0.374	0.027	0.549	0.053	0.695	0.035
0.434	0.037	0.252	0.023	0.626	0.047	0.752	0.044
0.374	0.027	0.281	0.012	0.600	0.061	0.717	0.027
16.355	1.949	13.829	0.644	34.848	4.104	52.384	2.298
18.287	1.456	19.748	4.261	39.290	4.179	42.527	2.203
18.624	1.013	11.613	3.427	40.273	3.847	45.053	1.857

0.039	0.006	0.141	0.006	0.061	0.002	0.162	0.012
0.062	0.006	0.108	0.009	0.056	0.002	0.171	0.011
0.082	0.018	0.122	0.008	0.066	0.002	0.168	0.005
0.855	0.070	1.097	0.029	0.075	0.008	0.130	0.009
0.849	0.058	1.114	0.054	0.086	0.010	0.126	0.009
0.758	0.075	1.023	0.061	0.081	0.010	0.140	0.010
1.040	0.022	1.206	0.033	0.314	0.056	0.578	0.050
1.003	0.033	1.138	0.075	0.188	0.043	0.399	0.056
1.060	0.153	1.025	0.063	0.152	0.021	0.336	0.051
8.660	0.708	9.739	1.162	0.138	0.013	0.225	0.005
9.660	0.561	10.598	0.646	0.095	0.011	0.138	0.004
8.755	0.664	10.856	1.019	0.090	0.005	0.124	0.009
2.272	0.102	2.467	0.103	0.382	0.037	0.696	0.023
2.294	0.058	2.605	0.096	0.285	0.023	0.589	0.050
2.197	0.101	2.484	0.118	0.265	0.020	0.594	0.025