

Table 1. Amount and Subcellular Distribution of Compounds in *Arabidopsis*

Compounds	Amount (nmol g FW ⁻¹)	Plastid (%)	Cytosol (%)	Vacuole (%)
3PGA ^a	200 ± 45	44	56	0
2PGA ^a	20 ± 4.5	0	100	0
ADPG ^a	0.55 ± 0.05	100	0	0
DHAP ^a	2.7 ± 0.6	23	77	0
F6P ^a	86.4 ± 14.6	34	66	0
FBP ^a	8.9 ± 2.3	70	30	0
G1P ^a	11.7 ± 2.4	8	92	0
G6P ^a	173 ± 51	17	83	0
RuBP ^a	46.7 ± 8.2	83	17	0
S7P ^a	28.0 ± 5.4	82	18	0
SBP ^a	9.6 ± 3.0	75	25	0
UDPG ^a	35.7 ± 5.7	0	100	0
R5P ^a	1.2 ± 0.2	49	51	0
X5P+Ru5P ^a	8.7 ± 2.6	100	0	0
Suc6P ^a	0.82 ± 0.36	0	100	0
PEP ^a	52.5 ± 9.9	6	94	0
Gly	543 ± 59	28	33	39
Glycerate	169 ± 65	31	47	22
Ser	4,265 ± 326	36	22	42
<i>myo</i> -inositol	922 ± 108	66	0	34
Suc	3,432 ± 167	19	31	50
Trehalose	20.8 ± 3.0	50	0	50
Glu	3,682 ± 1,042	30	42	28
Malate	1,820 ± 547	0	0	100
2-Oxoglutarate	63.1 ± 18.8	6	35	59
Pyruvate	99.2 ± 35.6	24	31	45
Val	139 ± 16	32	0	68
Ile	38.9 ± 4.5	33	0	67
Pro	641 ± 90	31	24	45
Thr	459 ± 58	42	0	58
Fumarate	1,154 ± 47	0	0	100
Asp	1,050 ± 346	19	46	35
Phe	53.1 ± 6.9	48	0	52
Asn	380 ± 25	30	17	53
Fru	1,458 ± 30	0	12	88
Glc	2,669 ± 475	12	23	65
Arg	164 ± 18	42	0	58
Tyr	9.8 ± 1.2	45	0	55
Citrate	1,916 ± 505	0	0	100
Shikimate	35.9 ± 7.6	37	22	41
Succinate	84.0 ± 48.2	4	17	79
Ala	228 ± 24	16	14	70
Gln	2,349 ± 177	11	0	89
Nitrate	224,000 ± 4,100	0	0	100
Aconitate	14.5 ± 5.5	0	0	100
Isocitrate	33.5 ± 3.6	0	0	100
Lys	n.d.	n.d.	n.d.	n.d.
Maltose	n.d.	n.d.	n.d.	n.d.
Met	9.9 ± 1.4	42	13	45

Data are from three independent nonaqueous gradients. 2PGA is assumed to be only in the cytosol and its amount to be 10% of the 3PGA amount. Subcellular distributions (%) were calculated using a three-compartment model (plastid, cytosol, and vacuole). For metabolites marked with an "a," a two-compartment model was used (plastid and cytosol). n.d., not determined.