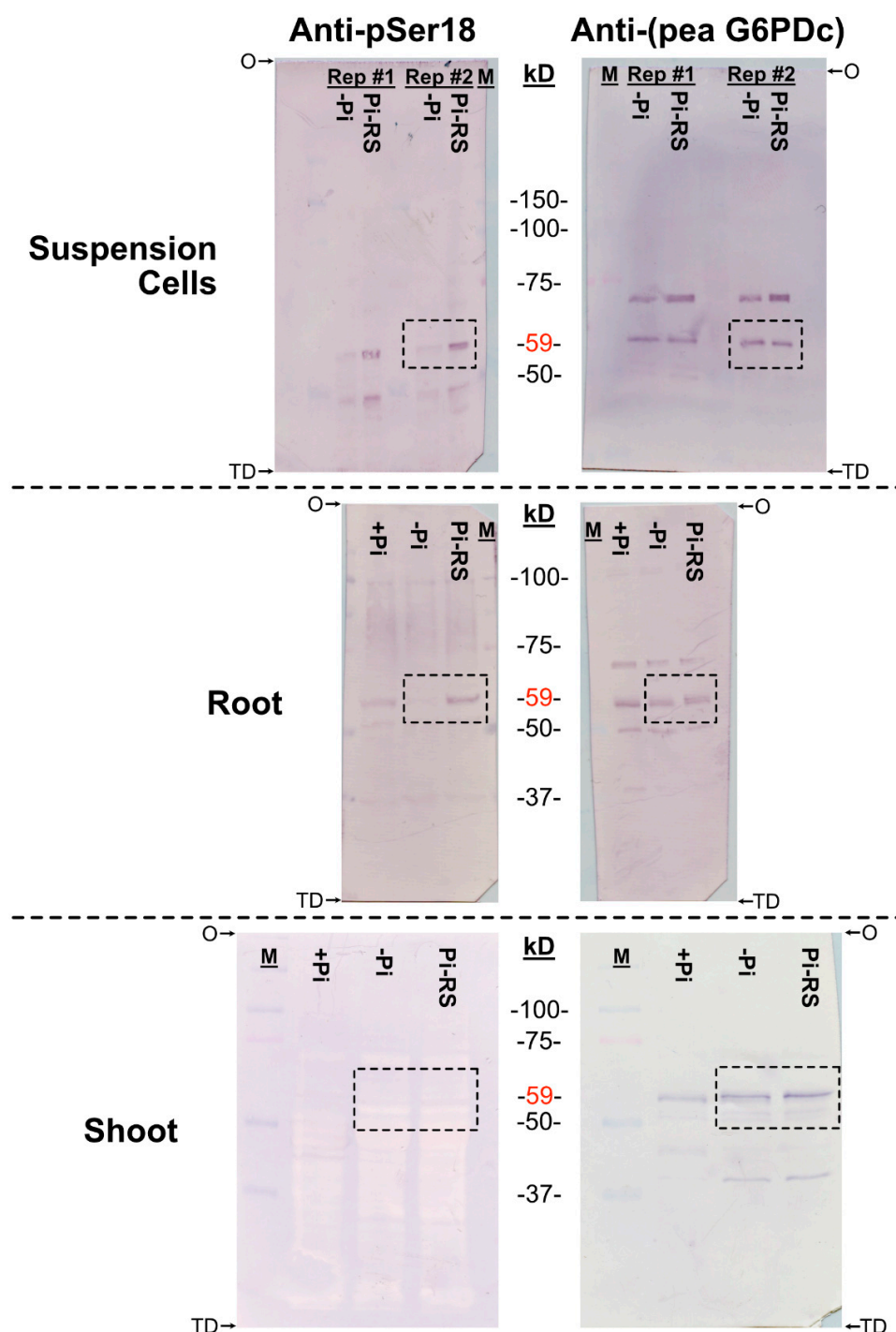
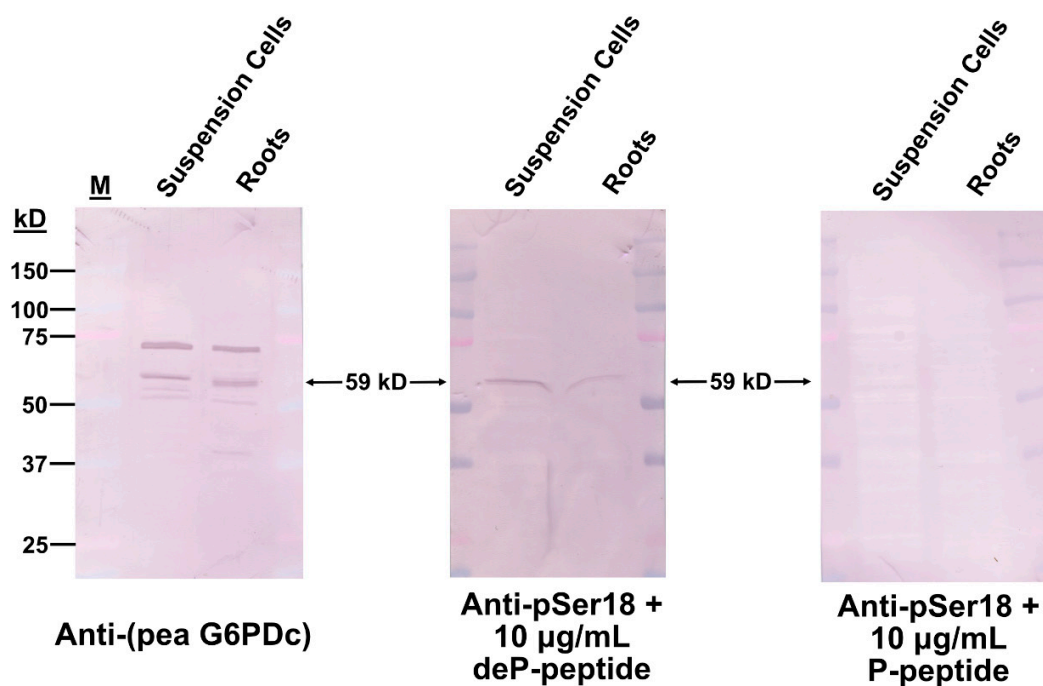


**Table S1.** Protein accession numbers of cytosolic G6PD orthologs aligned in Figure 2.

<b>G6PD ID</b>	<b>Species</b>	<b>Accession#</b>
<i>AtG6PD1</i>	<i>Arabidopsis thaliana</i>	NP_198428
<i>AtG6PD2</i>	<i>Arabidopsis thaliana</i>	NP_196815
<i>AtG6PD3</i>	<i>Arabidopsis thaliana</i>	NP_173838
<i>AtG6PD4</i>	<i>Arabidopsis thaliana</i>	NP_563844
<i>AtG6PD5</i>	<i>Arabidopsis thaliana</i>	NP_189366
<i>AtG6PD6</i>	<i>Arabidopsis thaliana</i>	NP_198892
<i>AnG6PD</i>	<i>Aspergillus niger</i>	P48826
<i>CeG6PD</i>	<i>Caenorhabditis elegans</i>	Q27464
<i>CvG6PD1</i>	<i>Chlorella vulgaris</i>	BAB96757
<i>GmG6PD2</i>	<i>Glycine max</i>	XP_040868353
<i>GmG6PD4</i>	<i>Glycine max</i>	XP_006599060
<i>HsG6PD</i>	<i>Homo Sapiens</i>	P11413
<i>HvG6PD</i>	<i>Hordeum vulgare</i>	XP_044966924
<i>MmG6PD</i>	<i>Mus musculus</i>	Q00612
<i>NpG6PD</i>	<i>Nostoc punctiforme</i>	P48848
<i>OsG6PD1</i>	<i>Oryza sativa Japonica Group</i>	XP_015627059
<i>OsG6PD2</i>	<i>Oryza sativa Japonica Group</i>	XP_015635836
<i>PpG6PD1</i>	<i>Physcomitrium patens</i>	XP_024357847
<i>RnG6PD</i>	<i>Rattus norvegicus</i>	P05370
<i>SlG6PD4</i>	<i>Solanum lycopersicum</i>	XP_004231802.1
<i>StG6PD2</i>	<i>Solanum tuberosum</i>	NP_001275397.1



**Figure S1.** Uncropped immunoblots of Figure 6, showing impact of Pi-resupply on G6PD6's Ser18 phosphorylation status. Clarified extracts from: Pi-sufficient ('+Pi'), -Pi, and 48 h Pi-resupplied (Pi-RS) suspension cells, and -Pi or 48 h Pi-resupplied seedlings (shoots and roots) were subjected to SDS/PAGE followed by immunoblotting with anti-pSer18 (+10  $\mu$ g/mL dephospho (deP)-peptide) or anti-(pea G6PDc). Approximately 8 and 1  $\mu$ g of protein were loaded into each lane of the anti-pSer18 and anti-(pea G6PDc) immunoblots, respectively. Boxed areas represent the cropped portions shown in Figure 6. 'O' and 'TD' denote origin and tracking dye fronts, respectively, and 'M' indicates various pre-stained molecular mass standards.



**Figure S2.** Specificity of phospho-site specific antibody raised against pSer18 of *Arabidopsis* G6PD6 (anti-pSer18). Clarified extracts from the 48 h Pi-resupplied suspension cells and seedlings (roots) were subjected to SDS/PAGE followed by immunoblotting with anti-(pea G6PDc), or anti-pSer18 in the presence of either 10 µg/mL of the dephospho- (deP-) or phospho- (P-) peptide shown in Figure 5A. Approximately 1 and 8 µg of protein were loaded into each lane of the anti-(pea G6PDc) and anti-pSer18 immunoblots, respectively.