

## Supplemental Information

**Table S1.** Polypeptides in the phosphorylated proteins purified from L40 wheat thylakoid membranes, as determined by LC-MS/MS analysis. “Position” indicates amino acid position in the corresponding protein. Each polypeptide was detected in the corresponding fraction name of SDS-PAGE (Figure 2b).

<b>Predicted Protein</b>	<b>Peptide Sequence</b>	<b>Position</b>	<b>Fraction Name</b>
D2	AYDFVSQEIR	296–305	A
	NILLNEGIR	319–327	A
D1	VINTWADIINR	313–323	A
	ANLGMEVMHER	324–334	A
CP26	WYGPDRR	68–74	B
	YQAFELIHAR	116–125	B
Lhcb1	ELEVIHCR	97–104	B
	FGAEVWFK	126–133	B
Lhcb2	FGAEVWFK	123–130	B