



**Figure 5-figure supplement 2.** R18(Lys) is a non-functional peptide control for R18. (a) The effects of Mock (H<sub>2</sub>O) and R18(Lys) on shade-induced nuclear localization of GFP-PIF7 do not differ. GFP-PIF7 #14 transgenic plants grown under white light were treated with Mock or R18(Lys) for 3 hr after 10 min of vacuum, and transferred to shade for the indicated periods. White scale bar represents 25  $\mu$ M. (b) Quantification of the shade-induced nuclear accumulation of GFP-PIF7. ImageJ was used to quantify the fluorescence intensities. Ratios of the nuclear and cytoplasmic signal intensities were calculated from at least 10 cells for each treatment. Error bars represent standard deviations. (c) The effects of Mock and R18(Lys) on the shade-induced dephosphorylation of PIF7-Flash. Five-day-old 35S::PIF7-Flash transgenic seedlings were treated with Mock or R18(Lys) for 3 hr after 10 min of vacuum under white light, and transferred to shade for indicated time. The level of PIF7-Flash was detected using anti-Myc antibody. RbcL was used as a loading control.