

**Table a5. Measurements of  $F_v/F_m$  ratio and chlorophyll content of WT and mutant leaves during growth at low temperature and different light conditions.**

$F_v/F_m$  ratio was recorded as index of photoinhibition of PSII. Chlorophyll content is expressed as mass of pigments ( $\mu\text{g}$ ) per unit leaf surface ( $\text{cm}^2$ ). Data refer to plants immediately prior to transfer at  $4^\circ\text{C}$  ( $t_0$ ) and after 1, 2 and 3 weeks of growth in HL ( $800 \mu\text{mol m}^{-2} \text{s}^{-1}$ ,  $4^\circ\text{C}$ ) or LL ( $20 \mu\text{mol m}^{-2} \text{s}^{-1}$ ,  $4^\circ\text{C}$ ). Data are expressed as mean  $\pm$  SD,  $n=6$ .

		$F_v/F_m$ ratio				Chlorophyll content ( $\mu\text{g}/\text{cm}^2$ )			
		$t_0$	1 week	2 weeks	3 weeks	$t_0$	1 week	2 weeks	3 weeks
<b>HL</b>	<b>WT</b>	$0.807 \pm 0.014$	$0.723 \pm 0.002$	$0.767 \pm 0.003$	$0.764 \pm 0.024$	$17.9 \pm 1.9$	$14.7 \pm 0.6$	$21.2 \pm 1.3$	$22.3 \pm 1.4$
	<i>npq1</i>	$0.820 \pm 0.007$	$0.602 \pm 0.021$	$0.725 \pm 0.054$	$0.766 \pm 0.018$	$18.5 \pm 1.1$	$16.2 \pm 2.4$	$28.0 \pm 5.8$	$26.2 \pm 5.4$
	<i>lut2.1</i>	$0.815 \pm 0.008$	$0.669 \pm 0.026$	$0.760 \pm 0.040$	$0.778 \pm 0.009$	$18.7 \pm 0.4$	$16.9 \pm 2.1$	$23.6 \pm 2.7$	$24.8 \pm 2.8$
	<i>npq1 lut2.1</i>	$0.800 \pm 0.01$	$0.640 \pm 0.027$	$0.781 \pm 0.007$	$0.774 \pm 0.006$	$20.7 \pm 1.6$	$9.06 \pm 1.4$	$19.4 \pm 3.0$	$15.5 \pm 2.4$
<b>LL</b>	<b>WT</b>	$0.807 \pm 0.014$	$0.795 \pm 0.006$	$0.798 \pm 0.013$	$0.797 \pm 0.011$	$17.9 \pm 1.9$	$20.5 \pm 1.2$	$21.0 \pm 2.0$	$23.3 \pm 2.1$
	<i>npq1</i>	$0.820 \pm 0.007$	$0.791 \pm 0.004$	$0.785 \pm 0.014$	$0.785 \pm 0.007$	$18.5 \pm 1.1$	$22.2 \pm 1.2$	$31.2 \pm 3.55$	$28.7 \pm 3.27$
	<i>lut2.1</i>	$0.815 \pm 0.008$	$0.807 \pm 0.020$	$0.810 \pm 0.017$	$0.817 \pm 0.014$	$18.7 \pm 3.9$	$19.1 \pm 1.6$	$23.7 \pm 5.3$	$22.3 \pm 3.6$
	<i>npq1 lut2.1</i>	$0.800 \pm 0.010$	$0.800 \pm 0.016$	$0.829 \pm 0.021$	$0.791 \pm 0.010$	$20.7 \pm 1.6$	$19.4 \pm 1.3$	$25.3 \pm 2.2$	$24.1 \pm 2.1$