

Table 1. *Estimated rates of protein synthesis and degradation for Col-0 grown in an 8-h photoperiod*

Col-0 was grown for 21 d in an 8-h photoperiod and then pulsed with $^{13}\text{CO}_2$ for 24 h, followed by a 4-d chase. The experimental design is described in the legend of Figure 1. The data are provided in Supplemental Data Set S1 and calculated enrichment values in Supplemental Table S1. The rate of protein synthesis was calculated by correcting enrichment in Ala in protein by the enrichment in free Ala at the end of the day. The calculations of protein degradation used an RGR of $0.221 \text{ mg fresh weight mg}^{-1} \text{ fresh weight d}^{-1}$, which was the average of three biological replicate experiments in these growth conditions (Supplemental Fig. S5). Results are estimated from the average of four biological replicates.

RGR	Protein Synthesis				Protein Degradation		Half-Life	
	Average 24-h Cycle	Light (per Hour)	Dark (per Hour)	Light:Dark Ratio	Pulse	Chase	Pulse	Chase
$\text{mg mg}^{-1} \text{ d}^{-1}$		% total protein			% total protein d^{-1}		d	
0.221	25.62	1.95	0.63	3.1	3.52	3.07	3.11	3.49