

Table II. Protein degradation in *Arabidopsis* grown at 20°C and 28°C

Col-0 was grown for 21 d in an 8-h photoperiod at either 20°C or 28°C, then pulsed with $^{13}\text{CO}_2$ for 24 h, followed by a 4-d chase. Plants were harvested at dawn before the start of the pulse, at dawn at the end of the pulse, and at dawn after 1, 2, 3, and 4 d of chase. The data are provided in Supplemental Data Set S3. Three or four samples of five plants were harvested at each time point for 28°C or 20°C, respectively. The rate of protein synthesis was estimated from the ^{13}C enrichment in protein in Ala at the end of a 24-h pulse and normalized with the enrichment in free Ala at the end of the pulse. The rate of protein degradation was estimated by comparing the decrease in enrichment in Ala in protein during the chase with RGR. This normalization will lead to a slight overestimation of the protein synthesis. The RGR at 20°C is the mean of three biological experiments, and that at 28°C is the mean of three biological replicates. Results are estimated from the average of four biological replicates from 20°C-grown plants and the average of three biological replicates from 28°C-grown plants.

| Treatment | RGR | Protein Synthesis | Protein Degradation | Half-Life |
|-----------------|-----------------------------------|-------------------|---------------------|------------|
| | $\text{mg mg}^{-1} \text{d}^{-1}$ | | $\% \text{d}^{-1}$ | d |
| 20°C | 0.221 | 31.7 | 3.07 | 3.49 |
| 28°C | 0.244 | 37.3 | 3.70 | 2.99 |
| Ratio 20°C:28°C | 0.91 | 0.85 | 0.83 | |