

## Supplementary Figure S2



**Insert sequence of the vector pPFP-Luc.** The vector pPFP-Luc carries an 1183 bp DNA fragment containing the *V. carteri* PFP promoter region, the 570 bp coding sequence of *Gaussia princeps* luciferase (*G-Luc*), and a 292 bp fragment containing the *V. carteri* *Lhcbm1* terminator region. The gene entries of PFP and *Lhcbm1* in the current *Volvox carteri* genome version 2.1 in Phytozome 13 are Vocar.0032s0153 (PFP gene) and Vocar.0001s0479 (*Lhcbm1* gene). The PFP gene is on scaffold 32 at nucleotide positions 1399706 bp to 1403755 bp (reverse). The *Lhcbm1* gene is on scaffold 1 at nucleotide positions 3740810 bp to 3742363 bp (forward). For the vector construction, pBluescript II SK (–) (Agilent Technologies, Santa Clara, CA, USA) was used as a backbone, because it includes an origin of replication of *E. coli* and an ampicillin resistance cassette. The sequence of pBluescript II SK (–) is as in GenBank (acc. no. X52330) but not shown here. The DNA fragments were inserted between the *Xho*I and *Not*I sites of the multiple cloning site of pBluescript II SK (–). The background colors indicate the following sequence features: green, PFP promoter region; gray, *V. carteri* Kozak sequence; yellow, coding sequence of *G-Luc*; orange, *Lhcbm1* terminator region. Start and stop codons are highlighted (violet font). Relevant restriction sites are marked (bold, underlined).