

Supplemental Figure S7

Genomic sequence of the *V. carteri* *ssg185* gene

GAATTCACATGGCGAAGTATAAGCATTGGATGGGGCTGGCGGCCGAGCAAGCGGGCAGGAAGGAGGTG
CTCCCGCACATCACAATGTTTATCCCACGTTCTGGCGAATTGCAAGCTTATGCAGTTTAGGCTTTGCTG
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ACGCCTGGCAAGAATGCTGGAACGTATATGGTCTCACCGCAACTCTATCGTTCCCTTTGGTCGTTAGT
ATACTTCATTACTTGTTCGTTGGAAGTGCAGGTTAGGATGGTGCTTATAGGCGATTTGGCAGCCCTT
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AACAAATACATACGTGCCGTCTTCCCTGAAGCATATTTTCCCCACGATGAATCGAATTATGACAAAGT
CAATATCAGGTGAACCATACGAACGGCGCCTCTTCGTGATGGGGCGACGCACTGACTTGATCCGCCGA
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TTGGTCCCCGACAACGATTACATTGACATGCAAGCAGCGGGTTGATTGCAAAGCTCAAGTTCATGCGA
CATCATCATTTGTATTTGACGCACATCGTGGCCGTTTTCCTCCTGAGGAATGAGAACGATCAGGAA
GCAAGCACGAACTGACGCTGACTGTTGTTGCTTGGGGTGCAGTGCAGCAACACATGCAACCCCACT
TCAAGGTCCAATTATGAATGCGGGGATGGGGTGGTAGGCGCGGCAGCGAGTATGCGCGTATCGGCGC
CCGGCTGGGCATCAGCCTGTTTGAGACGCCGTGCCATGCCGCTCCGCGCGGGTGCTTCGTTGGTCCAT
ACGTCTCGACTGGAATGTGTGTAGTCACAACTTCTGCCACATTCGATCTCCTTGGTCTTTGTAACACT
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CGTTTCAAAGCACATCTTTCGGAAGAAAAGGATACGAAAAGTTTTCATTTACGGCCGCATGTGCTAT
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AGCCAGGGCCGAAATAGAATACTGTCTATGTCTCGTGCAATCACCGGCAATTGAAGGAAGCAAGAAG
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AAACTGCCGCCGTTTCATCAGCAGTCAGGGCAAGCTAGCGTGAAAAACAGTAACGCGCCGTATCAGTAG
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TGAAAGGTAGAATGCGTAAATGTTCTTACCTTTCCCTAGACTGCGAAGAAACAAGCAAATGATGACTT
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GCCATTGAAGCAGGAGCAGCAGCACAAACGTAATCACCTATGAGGATATAAGTCTCATCATATTTT
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ACAGCATTTGTCCTTGACACCACGGGCACTGTTTGCCAGACAGTTCCGTTGACGGAGCCTTGCTGCAGC
GCTGACCTGTACAAGATTGAGTTTGACGTCAATAAGTGGTGTGATCCAGGCACCCTTCTGTTCTTACC

EcoRI

EcoRV

XhoI

start

CAGGCATGTCTGTAGGCACCTTGCCTGGAAAGGCAATTTCAATCTTGCACACCCCTGTCTGGCTCTTC
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CGGCTTCCCCTTCTGCGAGTGAGTGGCAACGGCTTCCCTTCTCTCTCACTTTTAAACGAACGTTCAA
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CCTGCTCGATCACAGAAATATCACAGCACGAACTGGACTGTTCCCTTGCTTTTACGATGTGCGCGCGCG
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CCAACAGTGTGCGAGTGTTATCAGGTGCAAAGTCCCTCCGCAGTGCTGATGCCTCCTCTTCAGCAGCAG
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CACGTCAGGGCCTGATGCGCCGTGGGTTTTAGGAAGCAGCTTCTCGCCTGAAGGGAGGGGGAGACGGGT
TCTGGGTTGGTTTGGTTCTGGTGCCCGCTAGGGTGAGAATTGCTGAAGGGCTGACGTGTACCAGGTCA
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TAAGCTTTAAACGATCTATTGATATGCGCTGCATGTGCGTGCGTATGTATGTGTGTATACGGCGATG
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AAGCTACCGGGATAGCATCAGTCTCTTCAATCATTCACCCGGTCTCCGCGTGTGGCGCTTGGGGGTAT
GTTCCCACTGCCGCCACTGTCACCTGCTGAGCTGTGCGCATGTCGTAATAACGCCTCTGCACGCCAGC

NotI
previous
sequence
gap

NotI
SacI

CCGTGGTATCGTTTTCCGGGATCCCGCTGTCGGGTCTAAGAATGGCTTCCGTTGCTGGCGCTGCTCGC **BamHI**
TGAACGCGAGACCAAGTTAACTTTTACTCCTGGAGCAGAAGGTTTAGTAAAACAAGCTATTGCTGAA
TATTTAGAAGAATTCAAATCAAGTGCTAAAGCTGCTTAATTAGTAATAATTTATATAATTTGGTGTCC **EcoRI**
ACAACATACATAGCTGCCGGTTGCAACCACATCTACACCCACATATGTCTGTGCGCGTGCGTGTGCA
CCTTGGGCTGCTTATGTGCTACCTACGAATGTATTAACCTAGAGCCCCATTACATGTGCTCAACCA
TGCCTACCAACACAACACCAACACATTTCCCCTTCGCACCCGTTCTCTGTTCTGAACCCACAGACGGC
AAGTGCAAGGGCTCCATTTTGCCGTTCACTCTGTCCAACACCGCGGAGATTAGGTCGTCAATTCTCCTG
GGACTCCACTCGCCAGTCCCTCAAATTCACCCGCCTGGGCCTCACCTATGCTCAAGGTGTCGCCGCGC
GCAGCCTCTGCTTCAACATCAAGGGTGCCGGCTGTACCAAGTTTGCAGATCTCTGTCTGGCCGCGGC **BglII**
TGCACCGTCGCGGTATTCAACAACCCCGACAACACATGTTGCCGCGGGTCGGCACCATCGCGTAAAG **stop**
CGTTTTCGCATGACGATGCAAAAAAAGGGTGGTGCAGCGCAACACCCCCCGTGGGTGTGTGGGTGTG
TGTGCCCGCGCAAGAAGATTGTGCGTGAGTGGATGTGCGCGGATGTGGGGGGGAAAACCGCCAGTCCC
TTTCTTATATGCTGCTACACATGACTGAGGTTGCTGCCGGGGAGGCGGAGGAGGCTTGTGGGTGTGGC
GTCGGCGTCGATGCCAAGTCACCGCTGTGCCACTGCTGCGGCGGGCTTGGATAGCAGCAGCAGCGGCG
CAGCAGCAGCAGCATCCGCAGCATCAGCAGCATAGGGACGCATGCATGCCTTTAGCCGGAATGGGAGG
GCTGCGTGCTGCTTTTGCAACCGCAGGGGTGAAAGTAGGTAGTCCTGCATAAATGATTAAGCACTGGT
CAAATGTCGCTGAGATGAACATAACACGATTATATATGATATGATGCGCGACATGATTGTTGGATGCG
GCCAGTACTTTTTTCCGCTGCGCAGGTGTCAGTGTTCAGCTTGGGTTTGATCCAGTTACGGGCCTCTC
GGCGTCTACCAAACGCAAATTGTCGTTAATTGATATTCTCTTGCTTTTTTGCGCATCTCGTCAAGTGAG
GGCAGCGTCCCCCTCCTGTGCTGCTGCACTTGACGTGGCTGTTGGAATGTTCCGTGCATGGCCGCTGG
CCCGAACCATTGTAGTTGAGTGACTACTGCGCTAACATTTCAGTTATTTTCGTAATAATCACCATCATA
ATTATCATCATCGCTACCTGCCTATGGCCGGGAAGTTGAGCAGGTTTTAACGTTTTTACGTTCAATCCC
GATGGCCACGTCACGTGTAGCAGGCCTTTGCGTTCCCGCTCTCTTGTAACCTATTTCTCATAGATAT **EcoRV**
CAAATTTGGCTCATCTTTGCAGTGGAGTATTCCTACAAATAGAGGTGCATCTGCCAGATTTGGCAAAT
AGAGGTGCATCTGCCAGATTTGGCCGGTGGGGGGACCTTATTAACCGTCGTTAACCAAGGATCC **BamHI**

The sequence depicted here corresponds to the 8.8-kb genomic fragment utilized in plasmid pSSG185-YFP. The *ssg185* gene is located on scaffold 2 (nucleotides 4191410 to 4198020) of the *V. carteri* genome version 2.1 (Prochnik et al., 2010) in Phytozome 12.1.6 (Goodstein et al., 2012) and has the gene ID Vocar.0002s0564. The start codon is at nucleotide position 4191698 to 4191700 on the forward strand. The gene structure is indicated as follows: Coding sequences are shown with blue background, UTRs with green background and the promoter region with grey background. Start and stop codons are highlighted (violet font). A previous sequence gap, which we closed, is also indicated (blue font). The 5' UTR is 153 bp in length, while there is a quite long 3' UTR of 891 bp. The restriction sites that are shown in Supplemental Figure S5A and B are marked (bold, underlined).

References

Goodstein, D. M., Shu, S., Howson, R., Neupane, R., Hayes, R. D., Fazo, J., Mitros, T., Dirks, W., Hellsten, U., Putnam, N. et al. (2012) Phytozome: a comparative platform for green plant genomics. *Nucleic Acids Res.* **40**, D1178-1186.
Prochnik, S. E., Umen, J., Nedelcu, A. M., Hallmann, A., Miller, S. M., Nishii, I., Ferris, P., Kuo, A., Mitros, T., Fritz-Laylin, L. K. et al. (2010) Genomic analysis of organismal complexity in the multicellular green alga *Volvox carteri*. *Science* **329**, 223-226.