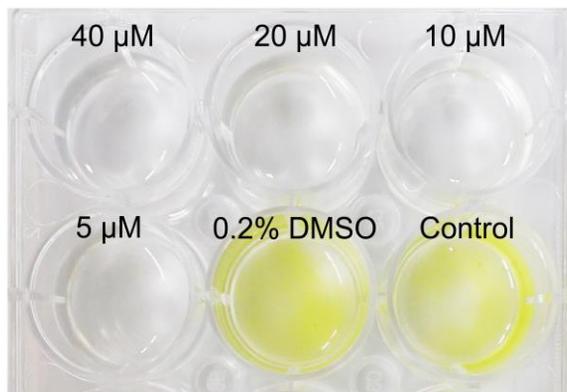




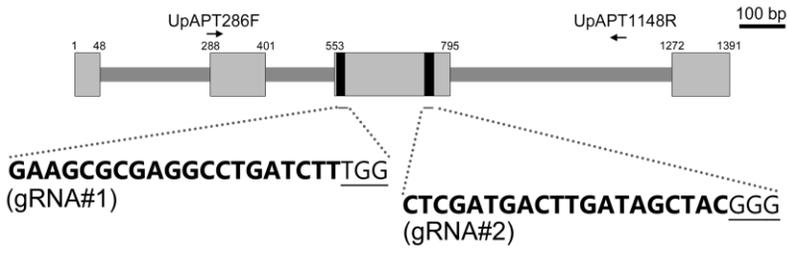
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Title	Genome editing using a DNA-free clustered regularly interspaced short palindromic repeats-Cas9 system in green seaweed <i>Ulva prolifera</i>
Author(s)	Ichihara, Kensuke; Yamazaki, Tomokazu; Kawano, Shigeyuki
Citation	Phycological research, 70(1), 50-56 https://doi.org/10.1111/pre.12472
Issue Date	2021-11-03
Doc URL	https://hdl.handle.net/2115/87604
Rights	This is the peer reviewed version of the following article: Ichihara, K., Yamazaki, T. and Kawano, S. (2021), Genome editing using a DNA-free clustered regularly interspaced short palindromic repeats-Cas9 system in green seaweed <i>Ulva prolifera</i> . Phycological Res., which has been published in final form at https://doi.org/10.1111/pre.12472 . This article may be used for non-commercial purposes in accordance with Wiley Terms and Conditions for Use of Self-Archived Versions.
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File Information	Figs.pdf

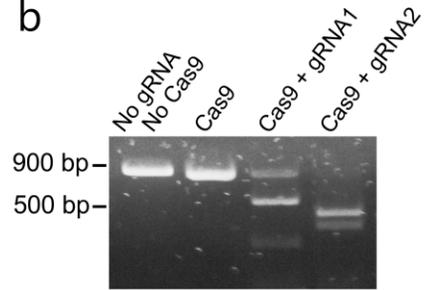




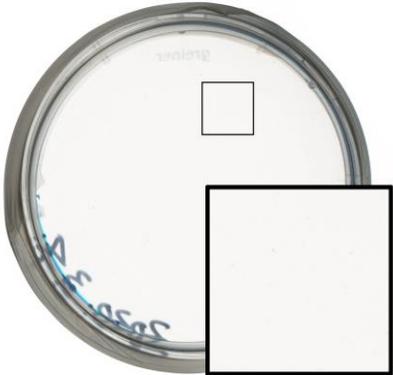
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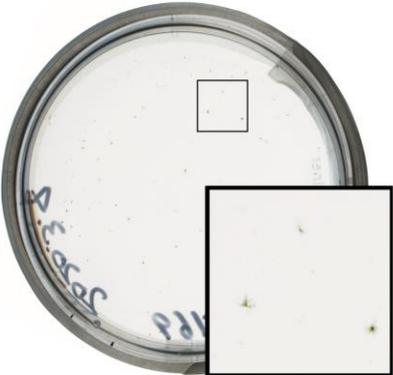
b



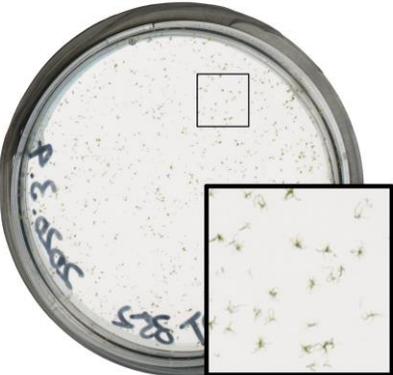
WT



Cas9 + gRNA#1



Cas9 + gRNA#2



a

gRNA#1	S	I
WT: CTTCGAAGCGCGAGGCCTGATCTTTGGGGCGC		
M1: CTTCGAAGCGCGAGGCCTGA ^g CTTTGGGGCGC	1	0 (n=2)
M2: CTTCGAAGCGCGAGGCCTGA ^c CTTTGGGGCGC	1	0 (n=1)
M3: CTTCGAAGCGCGAGGCCTG ⁻⁻ CTTTGGGGCGC	0	-2 (n=3)
M4: CTTCGAAGCGCGAGGCCTGA ⁻⁻ TTTGGGGCGC	0	-2 (n=1)
M5: CTTCGAAGCGCGAGGCCTGA ⁻⁻⁻⁻⁻ GGGGCGC	0	-5 (n=1)
M6: CTTCGAAGCGCGAGGCCTGA ^t CTTTGGGGCGC	0	+1 (n=2)
M7: CTTCGAAGCGCGAGGCCTGAT ^g CTTTGGGGCGC	0	+1 (n=1)
M8: CTTCGAAGCGCGAGGCCTGAT ^{gaggc} CTTTGGGGCGC	0	+5 (n=1)

gRNA#2	S	I
WT: GCTGCTCGATGACTTGATAGCTACGGGTGGC		
M1: GCTGCTCGATGACTTGATAG ⁻ TACGGGTGGC	0	-1 (n=3)
M2: GCTGCTCGATGACTTGATAG ⁻⁻⁻ GGGTGGC	0	-3 (n=4)
M3: GCTGCTCGATGACTTGATA ⁻⁻⁻⁻ CGGGTGGC	0	-4 (n=7)
M4: GCTGCTCGATGACTTGATAG ⁻⁻⁻⁻ GGGTGGC	0	-4 (n=1)
M5: GCTGCTCGATGACTTGA ⁻⁻⁻⁻⁻ CGGGTGGC	0	-6 (n=1)
M6: GCTGCTCGATGACTTGATAG ^c TACGGGTGGC	0	+1 (n=6)
M7: GCTGCTCGATGACTTGATAG ^t TACGGGTGGC	0	+1 (n=1)
M8: GCTGCTCGATGACTTGATA ^{cttga} TACGGGTGGC	2	+3 (n=1)
M9: GCTGCTCGATGACTTGATAG ^{acaaga} TACGGGTGGC	0	+6 (n=1)

b

