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Seminavis robusta protocol collection V.2

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Protist Research to Opti...

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Protocol status: Other
We attempted to genetically transform S. robusta, but did not succeed. This collection provides protocols that we used to arrive at the transformations, and everything included should work. Under "Guidelines", you can find the plasmids that we attempted to use for the transformations.

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Keywords: Diatoms, protist, transgenics, cultivation, marine, transformation, Seminavis robusta, diatom seminavis robusta, manipulation of the diatom seminavis robusta, seminavis robusta protocol collection, genetic tool, protocols for the cultivation, organism

Abstract

This is a collection of media, reagents, and protocols for the cultivation and manipulation of the diatom *Seminavis robusta*. Our hope is that these documents will help future researchers develop genetic tools for studying this organism.

Guidelines

In our (unsuccessful) attempts to transform *S. robusta* to confer resistance to puromycin or glyphosate, we used the attached plasmid sequences: pBS_ActAgroCP4GlyphR (an *Agrobacterium tumefaciens* derived glyphosate resistance cassette flanked by *S. robusta* sequences upstream and downstream of its Actin 1 homolog), pBS_ActEF_AgroCP4GlyphR (an *Agrobacterium tumefaciens* derived glyphosate resistance cassette flanked by *S. robusta* Actin 1 5' region upstream and Elongation Factor 1 3' downstream), and pBS_Act_PurR (a puromycin acetyltransferase glanked by *S. robusta* sequences upstream and downstream of Actin 1). All the plasmids used a pBluescript II SK (+) backbone and the resistance gene cassettes were codon optimized for the *S. robusta* genome. pBS_Act_AgroCP4GlyphR.gb pBS_Act_PurR.gb pBS_ActEF_AgroCP4GlyphR.gb

Files

SEARCH

Protocol

NAME

Media and reagents for Seminavis robusta cultivation and experiments

VERSION 1

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Cultivation of Seminavis robusta

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