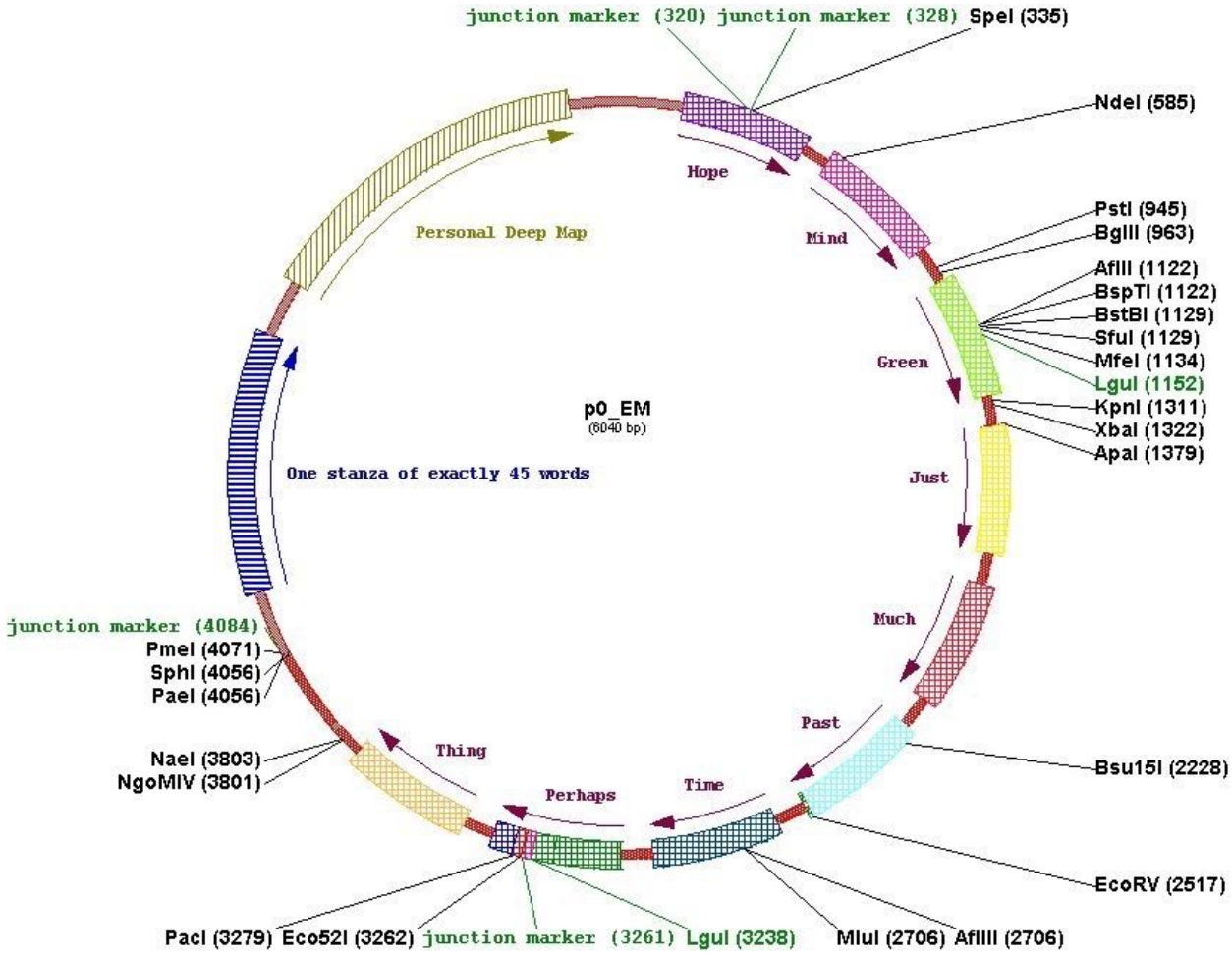
Poetry plasmid DNA extraction

USER MANUAL



CATHENKA-WILLITTS

#cwpoetics

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Components

1.1 Basic requirements

- users will be poets
- host lyric cells

1.2 Equipment to be supplied by users

- Computer
- Internet connection
- 2 x Google Drive accounts
- Poetic ability

1.3 About this User Manual

This user manual covers all the materials required and steps detailed for the purification and extraction of poetry plasmid DNA for both first time and experienced users.

It is strongly recommended for first time users to read the detailed protocol sections of the user manual before carrying out the experiment. Experienced users, however, may refer to the Protocol at a Glance instead. The Protocol at a Glance is designed to be used only as a supplemental tool for quick referencing while performing the purification procedure.

Product Description

2.1 Basic principle

With the Poetry Plasmid method, the selected words are resuspended (buffer 1) and plasmid DNA is liberated from the host cells by poetic lysis (buffer 2). Buffer 3 neutralises the resulting lysate verse and creates appropriate conditions for binding of plasmid DNA to the page. Precipitated words (debris) are then discarded by manual extraction. The Poetry Plasmid DNA is revealed with a simple loading of the supernatant into Wordle.net.

The Poetry Plasmid method is designed for the rapid, small-scale preparation of highly pure poetry plasmid DNA (mini preps).

The Poetry Plasmid method using wordle.net offers a very high binding capacity by speeding up the procedure by digitally sorting the occurrence of words, replacing previously labour intensive and unreliable manual sorting methods such as scissors and glue. Therefore the hands on time is reduced to less than 11 minutes. However, the DNA binding capacity is limited to 500 words.

2.2 Growth of bacterial cultures

Yield and quality of poetry plasmid DNA is highly dependent on the type of culture media and the host strain, the plasmid type or the poets, the size or copy number.

Lyric cell cultures should only be grown by poets to ensure poetry plasmid propagation. Without this selective pressure, cells tend to lose poetry plasmid during cell division. Since bad poetries grow much faster without the burden of a high-copy poetry plasmid, they take over the culture and the poetry plasmid yield decreases regardless of the word count.

The culture should be written at room temperature. Please note: overgrowing a culture might lead to a higher percentage of dead or starving words and the resulting poetry plasmid DNA might be partially degraded or contaminated with prose DNA. Therefore, please apply a stream-of-consciousness method wherever possible, within the managed constraints of the host lyric cells.

2.3 Lysate neutralization and Lyse control

Proper mixing of the lysate by the poets is of the utmost importance for complete precipitation of genomic DNA (from the host lyric cells). Incomplete mixing and disruption of the verse media leads to reduced yield of exciting poetry. The released plasmid is very vulnerable at this point

and too much repetition will damage the DNA. Therefore do not overthink or format but just mix confidently until a fluffy messiness has formed and the two poems are thoroughly integrated.

You will find that working simultaneously on the same document under pressure of time leaves no time for patient consideration. The success of this stage depends on ‘flow’ thinking characterised by a confident and bold approach to cutting and pasting. Resist the urge to swear at your partner as they remove the piece you were after. This chaos is an important part of the creative process.

Set a strict 5 minute timer. As soon as you have finished, read the resulting text out loud to each other.

Preparation of working solutions

Before starting any Poetry Plasmid protocol prepare the following:

- Choose a poet from which to harvest host lyric cells
- Select 5 poems or pieces of poems (host lyric cells) of between 15 and 20 words (not less, not more)
- Copy the selected host lyric cells into a document and share with your collaborator
- Ensure that both collaborators have access to Google Docs. We highly recommend a short familiarisation with the software for first time users. Working simultaneously on a document can be a strange experience if you have never used one before. Make sure you know what to expect before starting the protocol.

Poetry Plasmid DNA Protocol

Protocol for the isolation of high-copy poetry plasmid DNA

Note: This protocol is designed to saturate 15-20 word lyric cells to make 2,500 words of verse medium for the isolation of poetry plasmid DNA.

Before starting the preparation:

- select the source lyric cells.

Note: all protocol steps should be carried out at room temperature

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1. Cultivate and harvest lyric cells

Using 2 poets suspend up to 20 words of lyric cell in 230 words of verse medium to create a word culture. The original words must remain in the suspension. No cell clumps should be visible after resuspension. At the end of this stage you will have ten word cultures of 250 words which will smell like marmite and look like pee.

Troubleshooting: if at this stage some of the cultures have not formed fully, resuspend in more verse medium.

Choose a source poet. Select 20 word phrases of poetry. These are your source lyric cells. Take time to enjoy choosing these starter cells. Each word will be used to cultivate your word cultures. Nothing can be taken away.

The process of adding your own words, the suspension, can be carried out as a stream of consciousness, a riff or a carefully crafted poem. This suspension is going to be chopped up and most of it discarded. Each poet will add their 250 words according to their own levels of playfulness and interpretation. Enjoy the process of responding to the lyric cell. Include ALL the original lyric cell words and add 250 words to create enough cultured material to carry out the rest of the experiment. You can repeat words or phrases but you cannot delete any of the source lyric cell.

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2. Cell Lysis

Select the 2 cultures from the same lyric cell. Combine the cultures in a shared google drive document. Add 2 poets mixing and disrupting the text simultaneously. Do not allow lysis reaction to proceed for more than 5 minutes. Ensure that all the verse cultures have been well combined.

The verse will look viscous and snotty. Repeat for each culture. You will now have 5 x 500 word lysate verses.

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3. Clarification of the lysate

For each 500 word lysate, cut and paste the text into worlde.net which preferentially precipitates out the debris and the steinian clumps. You will discard all the words apart from the very smallest. Manually extract the smallest words and type them into a document.

Troubleshooting: if wordle does not respond please follow on screen instructions for installing Java and try again.

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4. Bind and Elute the poetry plasmid DNA

Cut and paste the combined text into wordle.net to preferentially precipitate out the debris. Harvest only the largest words. Discard the rest. You will now have your poetry plasmid DNA.

Plasmid DNA Storage and Usage

Upload your Poetry Plasmid DNA to the Fractal Poetics website www.fractalpoetics.com by clicking on the UPLOAD button and following the on-screen instructions.

For further instructions on growing Fractal Poetry from Poetry Plasmid DNA please refer to User Manual for Growing Fractal Poetry from Poetry Plasmid DNA by Anna Cathenka and Alice Willitts.

Appendix

Troubleshooting

This could include things like the Java script installation for wordle.net

References

Machery-Nagel Plasmid DNA purification manual for NucleoSpin® Plasmid, NucleoSpin® Plasmid (NoLid), NucleoSpin® Plasmid Quick Pure, December 2015 / Rev. 09

Product use restriction / warranty

CATHENKA-WILLITTS poetry plasmid DNA purification method is intended for POETIC EXPERIMENTS ONLY! CATHENKA-WILLITTS methods are suited for QUALIFIED POETS ONLY! And shall in any event only be used in an ADEQUATE TEST ENVIRONMENT with APPROPRIATE EQUIPMENT. For detailed information on equipment required please refer to the COMPONENTS instructions for each method. CATHENKA-WILLITTS does not assume any responsibility for damages due to improper application of our methods in other fields of application.

No claim or representations is intended for its use to identify any specific poetic organism or for practical use (included, but not limited to diagnostic, prognostic, therapeutic or fractal). It is rather in the responsibility of the user or - in the case of resale of the product - in the responsibility of the reseller to inspect and assure the use of the DNA protein purification results using the CATHENKA-WILLITTS methods for a well-defined and specific application.

CATHENKA-WILLITTS is not liable for damages or defects arising in handling or out of accident or improper or abnormal use of this method. There is no warranty for defects in components not created by CATHENKA-WILLITTS such as non-CATHENKA-WILLITTS software, components or service providers.

Protocol at a Glance

1. Select lyric cells	20 words
2. Cultivate and harvest lyric cells	2 x poets resuspend 20 x words of lyric cell 250 words of verse medium
3. Cell lysis	2 x cultures 2 x poets 1 x google doc 5 mins ⟳
4. Clarify lysate	500 word lysate 1 x wordle.net ⟳ Harvest smallest words 1 x google doc
5. Elute DNA	Cut and paste harvested words 1 x wordle.net ⟳
4. Extract plasmid DNA	Harvest largest words

CATHENKA-WILLITTS is the creator of the Poetry Plamid DNA Purification Method

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