



Jul 22, 2025

Re-using pipette tips for gel loading

DOI

<https://dx.doi.org/10.17504/protocols.io.e6nvw495dlmk/v1>

Gaia Gestri¹, Kate Turner¹, Anya Suppermpool¹

¹UCL

FishFloorUCL



Kate Turner

UCL

Create & collaborate more with a free account

Edit and publish protocols, collaborate in communities, share insights through comments, and track progress with run records.

Create free account

OPEN  ACCESS



DOI: <https://dx.doi.org/10.17504/protocols.io.e6nvw495dlmk/v1>

External link: <https://zebrafishucl.org/plastic>

Protocol Citation: Gaia Gestri, Kate Turner, Anya Suppermpool 2025. Re-using pipette tips for gel loading. **protocols.io** <https://dx.doi.org/10.17504/protocols.io.e6nvw495dlmk/v1>

License: This is an open access protocol distributed under the terms of the [Creative Commons Attribution License](#), which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited



Protocol status: Working

We use this protocol and it's working

Created: July 14, 2025

Last Modified: July 22, 2025

Protocol Integer ID: 222414

Keywords: pipette tips, greenlab, sustainability, plastic reduction, pipette tips for gel, gel loading tip, using pipette tip, loading gel loading tip, loading gel, gel, tip, single use

Funders Acknowledgements:

MRC

Grant ID: 556922

Abstract

Gel loading tips can be reused for most applications; there's REALLY no need to throw them away after a single use. In

our labs, we routinely reuse tips when loading gels, only switching to fresh ones when we plan to extract bands for cloning or sequencing.

Re-using pipette tips for loading gels.

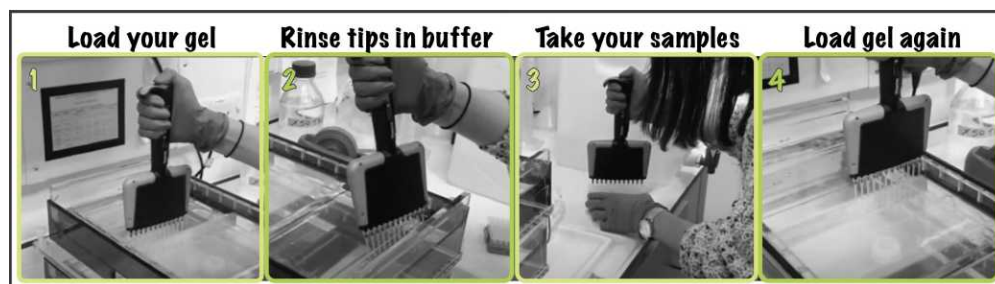
1 Genotyping

Pipette tips can be REused for multiple rounds of genotyping saving thousands of tips in your lab.

<https://www.youtube.com/embed/yOaemxk0p6I?si=eKys6Ft5RiNZzGqF>

Watch Anya demonstrate how to load a gel with a much smaller number of pipette tips. Don't forget to keep your box of tips for subsequent rounds of genotyping, they can be used again and again!

2

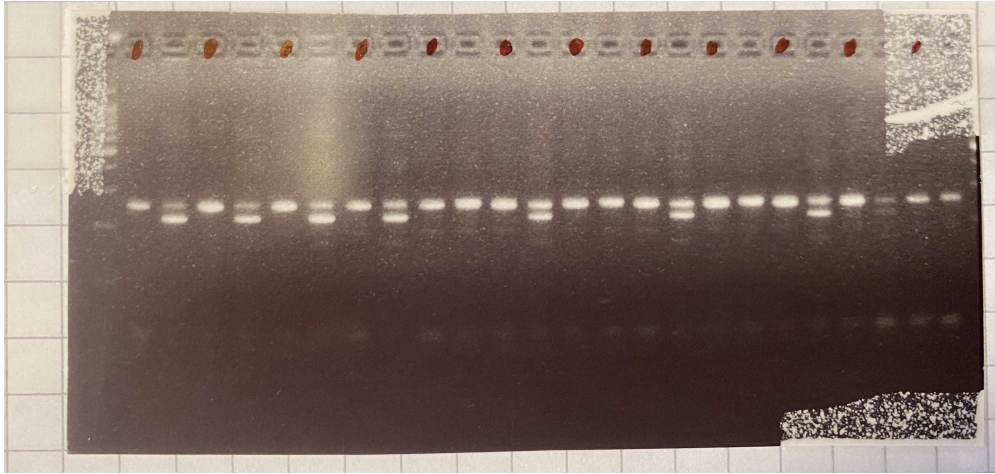


3 Checking your DNA or RNA



You can just use one tip to load a gel. Rinsing the tip with the running buffer between samples is an efficient way to avoid contamination. The only time we use a fresh tip is if we want to extract the band for cloning or sequencing.

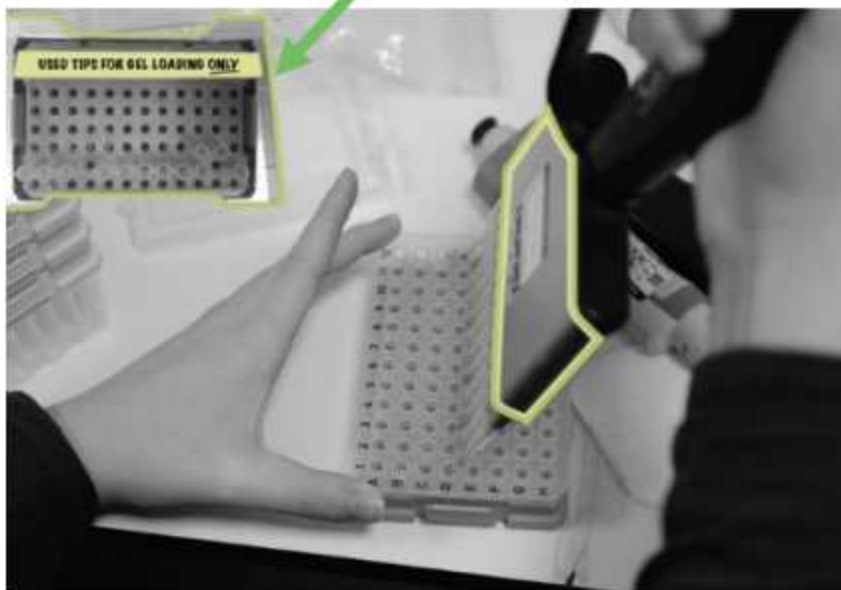
4 Mapping mutants



We have mapped multiple mutants re-using the same tips again and again (e.g. **Cachd1** ; **Tcf7l1a**; **mab21l2^{u517}**). Again, just rinse your tips between samples and at the end ,then store for loading the next gel. This tip comes from Will Talbots lab at **Stanford University** where they have successfully mapped multiple zebrafish mutants using the same tips over and over again.

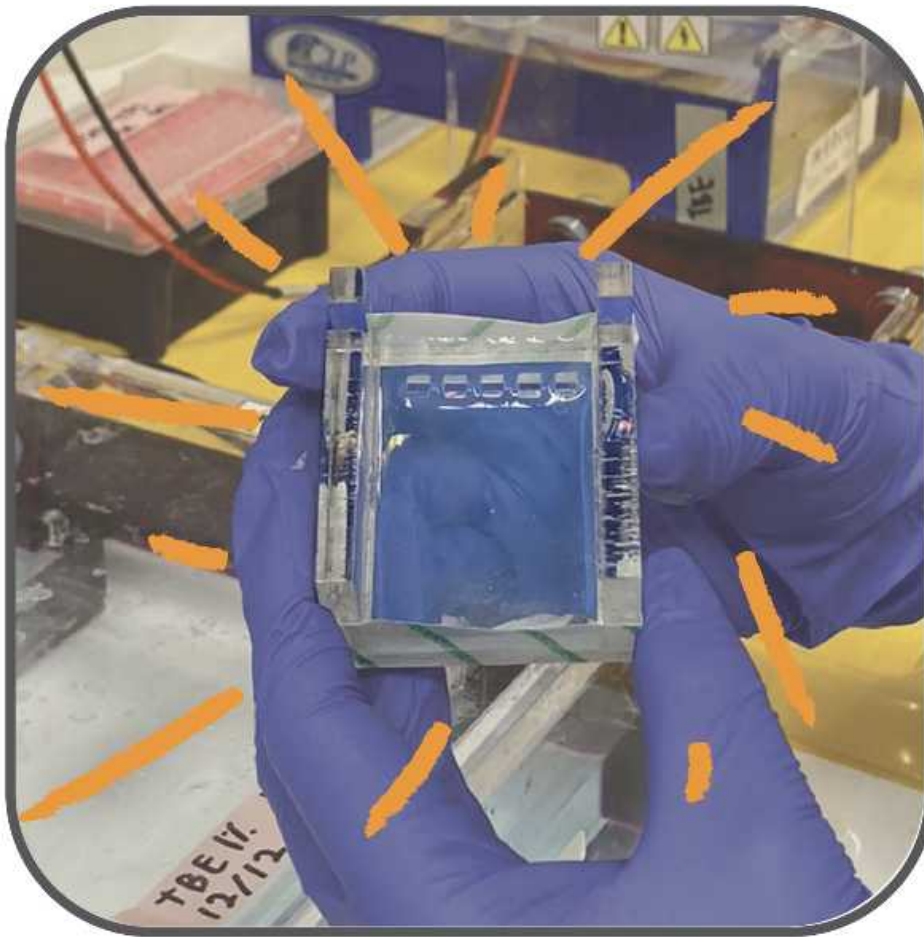
5 Store your tips

Keep your used tips in a box ready
to load the next gel



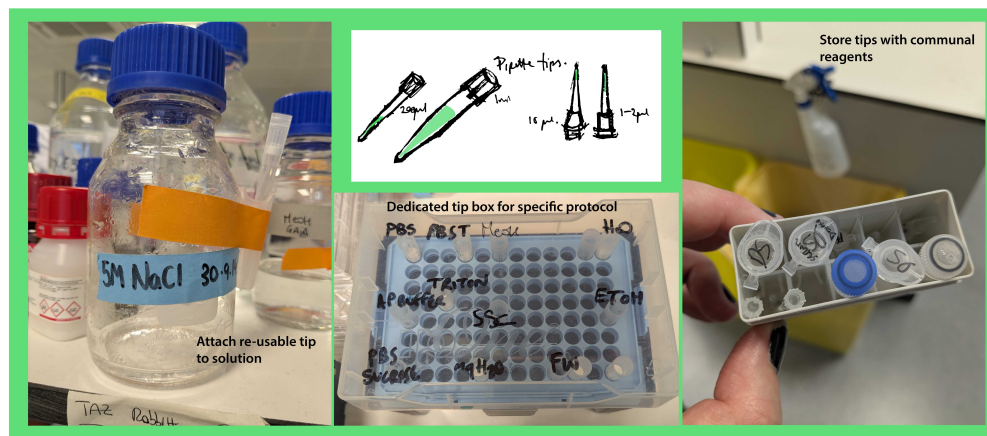
Use less agarose with our mini gel rig.

6



Our adorable mini gel rig was made by laser cutting pieces from an old broken gel rig. It uses three times less agarose than the equivalent 5 lane commercial gel rig. Saving agarose and cute to boot! Feeling inspired? Download the [laser-cutter pattern](#) and build your own sustainable rig.

Reuse Pipette Tips: WHEREVER POSSIBLE!



Keep designated pipette tips for solutions you use regularly. Really think before you reach for a fresh tip! For more ways to store your pipette tips check out <https://zebrafishucl.org/plastic>