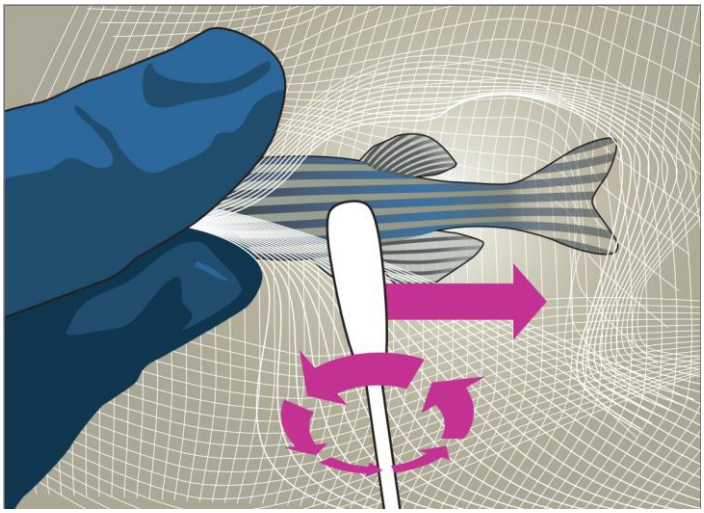
Snooplex FastPrep Fish

All-in-one solution for fish DNA sampling and genotyping from skin swabs

Snooplex FastPrep Fish is an innovative and highly reliable all-in-one solution developed by GVG Genetic Monitoring for fish DNA sampling and genotyping without fin clipping. It is ideal for improving animal welfare in small laboratory fish breeding.

The Snooplex FastPrep Fish comes with sterile swabs, Snooplex lysis buffer, 5x PCR reaction buffer, Hot-start *Taq* DNA polymerase, nuclease-free water, and gel loading buffer.

Method:



(1) DNA extraction

1. Open the outer packaging of the swabs.

2. Hold the fish securely in an aquarium net on top of a wetted sponge. Stroke five times gently with the tip of the Snooplex FastPrep swab along the flank of the fish while rotating the swab around its axis. *This step is vital and must therefore be carried out properly as otherwise the amount of material collected could be insufficient for downstream DNA extraction.* Always perform swabbing in direction from the operculum to the caudal fin.

3. Place the swab into a 1.5 ml reaction tube. The swab can be stored at –20°C if the time span between collection and DNA extraction exceeds 24 hours.

4. Add 100 µl of Snooplex lysis buffer to the reaction tube. The liquid should cover the end of the swab.

5. Incubate the swab for 20 min at 80°C with shaking at 1300 rpm, e.g. in a thermoshaker suitable for 1.5 ml reaction tubes.

6. After cooling, the DNA extract can be used immediately for PCR setup.

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(2) PCR setup

1. Mix all the components thoroughly and centrifuge briefly before use.

2. Prepare a master mix according to table (use Snooplex FastPrep Mastermix calculator). The master mix contains all the components necessary for PCR except template (fish) DNA and target-specific primers.

Component per reaction	
5x PCR reaction buffer	5 µl
5x Control mix D or E (gel loading buffer)	5 µl
Taq DNA polymerase	1 µl
Customer-specific primer (100–400 nM)	Variable
Nuclease-free water	Variable
Template DNA (5 µl is usually sufficient)	Variable
Total volume	25 µl

3. Prepare a total volume of master mix to allow for 2–3 additional reactions. We recommend including positive and negative controls.

4. Control mix D (with 135 bp internal PCR control) and Control mix E (without internal positive PCR-control primers) are supplied in gel loading buffer. Therefore, the PCR product can be directly applied to agarose gels.

5. Add 5 µl of template DNA to give a final volume of 25 µl. (Do not use more than 10 µl of DNA extract per 25 µl PCR reaction.) For positive control, use a defined positive sample. For negative control, use a wild-type fish DNA sample.

Order details

Product	**Description**	**Cat. No.**
Snooplex FastPrep Fish D, for 96 reactions	with 135 bp Internal control	SFP-D-001
Snooplex FastPrep Fish E, for 96 reactions	without any Internal control	SFP-E-001
Snooplex FastPrep Mastermix calculator		free

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