

Materials List for:

## Multi-locus Variable-number Tandem-repeat Analysis of the Fish-pathogenic Bacterium *Yersinia ruckeri* by Multiplex PCR and Capillary Electrophoresis

Snorre  $\operatorname{Gulla}^1$ , Saima Nasrin Mohammad $^1$ , Duncan John  $\operatorname{Colquhoun}^{1,2}$ 

Correspondence to: Snorre Gulla at snorre.gulla@vetinst.no

URL: https://www.jove.com/video/59455

DOI: doi:10.3791/59455

## **Materials**

Name	Company	Catalog Number	Comments
22°C/15°C incubator	As preferred.	NA	
5' Labeled Primer, 10K PMOL, Desalted, Dry	Thermo Fisher Scientific	450007	Sequences and labelling in Table 1. Prepare working aliquouts in TE-buffer.
Agarose, universal, peqGOLD	VWR	732-2789P/732-2788	Used during gel electrophoresis.
Avant 3500xL Genetic Analyzer	Thermo Fisher Scientific	A30469	Used for capillary electrophoresis fragment analysis.
BioNumerics7 modules	Applied Maths	NA	Used for generating Minimum spanning trees from MLVA data.
Centrifuge(s)	As preferred.	NA	
Custom DNA Oligo, 25N, Desalted, Dry	Thermo Fisher Scientific	A15612	Sequences in Table 1. Prepare working aliquouts in TE-buffer.
DNA Gel Loading Dye (6X)	Thermo Fisher Scientific	R0611	Loading dye used during gel electrophoresis.
Eppendorf Safe-Lock Tubes, 1.5 mL	Eppendorf	30120086	Centrifuge tubes used during DNA extraction.
Freezer	As preferred.	NA	
Fume cupboard	As preferred.	NA	
Gel electrophoresis system	As preferred.	NA	
GelRed Nucleic Acid Stain, 10,000X in water	Biotium	41003	Fluorescent nucleic acid dye used during gel electrophoresis.
GeneMapper Software 5	Thermo Fisher Scientific	4475073	Used for reading electropherograms from capillary electrophoresis.
GeneRuler 50 bp DNA Ladder, ready-to-use	Thermo Fisher Scientific	SM0373	DNA ladder used during gel electrophoresis.
GeneScan 600 LIZ dye Size Standard v2.0	Thermo Fisher Scientific	4408399	Size standard used during capillary electrophoresis.
Heating block	As preferred.	NA	
Hi-Di Formamide	Thermo Fisher Scientific	4311320/4440753	Deionized formamide used during capillary electrophoresis. Prepare working aliquouts.
Milli-Q water	NA	NA	Purified water used during PCR and capillary electrophoresis. Standard recipe; produced inhouse.
Multiplex PCR Plus Kit	Qiagen	206151/206152	
PCR thermal cycler	As preferred.	NA	

<sup>&</sup>lt;sup>1</sup>Fish Health Research Group, Norwegian Veterinary Institute

<sup>&</sup>lt;sup>2</sup>University of Bergen



POP-7 Polymer for 3500 Dx/3500xL Dx Genetic Analyzers	Thermo Fisher Scientific	A26077/4393713/4393709	Separation matrix used during capillary electrophoresis.
Pure culture Yersinia ruckeri	NA	NA	E.g. cryopreserved or fresh.
RNase-free water	Qiagen	NA	In: Multiplex PCR Plus Kit
Tris-borate-EDTA (TBE) buffer	NA	NA	Standard recipe; produced inhouse.
Trypsine soy agar/bovine blood agar	NA	NA	Standard recipe; produced inhouse.
UV-based gel imaging/visualisation system	As preferred.	NA	
Vortexer	As preferred.	NA	