Electronic suplementary information

PROTOCOLS

Gut preparation and DNA extraction protocol

The entire gut of adult isopods is extracted with fine-tipped sterile forceps. The hindgut is then cut open longitudinally with a sterile blade, transferred to a 2 ml sterile microfuge tube, homogenized using a teflon homogenizer, and mixed by vortex in 0.1 ml of TES buffer (50 mM Tris-HCl [pH 8], 5 mM EDTA, 2.5% sucrose). 390 μl of lysosyme in TES (200 mg/ml) is added and the solution is incubated at 37 ºC for 50 min. Lysis buffer GES (300μl; 60% guanidium thiocyanate (w/v), 20% EDTA (0.5M; pH 8.0) and 1% sarcosine is added, mixed by vortex and incubated on ice for 10 min. Three cycles of thermal shock is executed (10 min at -65 ºC and 10 min at +65 ºC), followed by the addition of 11 μl of RNAase (10 mg/ml), gentle mixing and incubation at 37 ºC for 60 min. After the addition of proteinase K (3.5 μl at 20 mg/ml), the mixture is incubated at 37 ºC (50 min). Afterwards, 50 μl of ammonium acetate (7.5 M) is added and the mixture incubated on ice for 10 min. The sample is then treated by adding an equal volume of phenol/chloroform/isoamyl alcohol (25:24:1), and centrifuged at 10,000 g for 20 min. The pellet is washed with 800 μl of chloroform/isoamyl alcohol (24:1; v:v), followed by homogenization and centrifugation for 20 min. The supernatant is removed to a new 2 ml microfuge tube and the DNA is precipitated by adding 0.5 volume of isopropyl alcohol, and rinsed with 70% ethanol. Finally, the DNA is air dried and ressuspended in 40 μl of ultra-pure sterile water.

PCR amplification of 16S rDNA and ARDRA profiles protocol

PCR amplification of the 16S rRNA gene is carried out as described earlier (Rainey et al., 1996). Agarose gel electrophoresis is run in order to confirm and separate the 1500 bp length amplicon. Bands are cut from the gel and purified using a JetQuick Gel Extraction Spin Kit (Genomed, USA), according to the manufacturer's recommendations. The purified amplicons is digested overnight with *Hinf*I and *Dde*I restriction endonucleases (Roche Diagnostic GmbH, Germany), according to the manufacturers' instructions, and subsequently the profiles generated by 2% agarose gel electrophoresis. The profiles are then compared using GelCompar II, version 5.1 (Applied Maths, Kortrijk, Belgium)