

WERTH, S., REYNISDÓTTIR, S., GUÐMUNDSSON, H. & ANDRÉSSON, Ó. S. 2016. A fast and inexpensive high-throughput protocol for isolating high molecular weight genomic DNA from lichens. – *Herzogia* **29**: 610–616.

### **Supplementary Appendix S3: Buffers used for DNA extraction**

#### **1. Lysis buffer (IVANOVA et al. 2008)**

<u>Final concentration</u>	<u>Quantity for 1 litre</u>
2% CTAB	20 g
100 mM Tris-HCl	100 ml of 1 M solution, pH=8.0
20 mM EDTA	5.845 g (careful: depends on molecular weight)
1.4 M NaCl	81.816 g

Heat the solution to 65°C to dissolve CTAB and NaCl. Avoid excessive shaking because it creates foam.

#### **2. Binding buffer (ALEXANDER et al. 2007)**

<u>Final concentration</u>	<u>Quantity for 1 litre</u>
2 M guanidine hydrochloride	191.06 g

Fill up with absolute ethanol to 1 litre, mix. It can take some time to dissolve, but it will usually dissolve overnight, or if heated to 65°C for some time. **Note:** Guanidine hydrochloride is a hazardous chaotropic salt — store at room temperature, handle with gloves, dispose of separately in chemical waste. Make sure not to mix with bleach as this creates dangerous reactive compounds!

#### **3. AE buffer (Qiagen; available at: [http://openwetware.org/wiki/Qiagen\\_Buffers](http://openwetware.org/wiki/Qiagen_Buffers))**

<u>Final concentration</u>	<u>Quantity for 1 litre</u>
10 mM Tris-HCl	10 ml of 1 M solution, pH=8.0
0.5 mM EDTA	0.14612 g (careful: depends on molecular weight)

Add chemicals and fill up with ddH<sub>2</sub>O to ca. 500 ml. Adjust pH to 9.0 with 1 M NaOH. Fill up to 1 litre with ddH<sub>2</sub>O and mix well.