

## Genotyping DNA Guidelines

### Project Management

- Once a project has been accepted a project code and a project co-ordinator will be assigned to it and all queries will be dealt with by that individual.

### Sample Preparation

- No specific kit or protocol is specifically recommended but it would assist the project if the extraction kit details are provided with the samples.
- A protocol or kit which provides high quality DNA and sufficient yield are the main criteria.

### DNA Quality

- Edinburgh Genomics will assume DNA quality will have been checked before shipping.
- DNA should have a 260/280 ratio of 1.8-2.0.
- DNA should have a 260/230 ratio of 2.0-2.2.
- Acceptable and unacceptable DNA qualities are shown on figure 1.
- Greater than 90% of the DNA should have a molecular size greater than 12kb

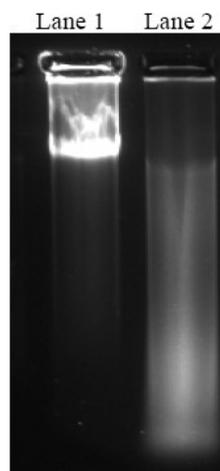


Figure 1 Example of Acceptable Quality DNA (lane 1) and Unacceptable Degraded DNA (lane 2).  
Run on 1% agarose gel.

## DNA Quantification and Requirements

- DNA samples should ideally be quantified by fluorescent-based dsDNA assay (e.g. PicoGreen assay). This assay has given consistent genotyping results.
- Quantification using other methods such as the Nanodrop and Spectrophotometers can be less accurate leading to variable genotyping results.
- A minimum volume of 20  $\mu$ l of each sample at a concentration of at least 50 ng/ $\mu$ l in water or TE (10mMTris 1mM EDTA pH8.0) should be sent.
- **If your samples fail to achieve the DNA quality or quantity required by Edinburgh Genomics or you are unable to test your DNA please contact us before sending samples.**

## Shipping

- Please contact us before shipping your samples so that we can send sample sheets and labels to you and discuss the format of tubes or plates for the samples.
- When the samples are ready the project co-ordinator will send one of the following:
  - Samples sent in individual tubes.
    - A Sample form. Fill in the requested details and return and electronic copy to Edinburgh Genomics. Also make a hard copy to return with your samples.
    - Sterile screw top tubes for the samples.
    - A set of labels for the sample tubes. The sample form must be returned with your samples.
    - Sample tubes in an addressed jiffy bag should be sent to Edinburgh Genomics at the address below by next day delivery at appropriate temperature.
  - Samples sent in 96 well plates.
    - A Sample form. Fill in the requested details and return and electronic copy to Edinburgh Genomics. Also make a hard copy to return with your samples
    - A 96 well plate for the samples sealed with a self-adhesive seal or heat seal.
    - A set of plate labels for the sample plates. The sample form must be returned with your samples.
    - Please ensure that the plate seal is firmly in place around the edges to prevent leakage during shipping, wrap plate in bubble wrap and send to



Edinburgh Genomics in an addressed jiffy bag by next day delivery at appropriate temperature.

- Address for shipping:  
**Edinburgh Genomics**  
**Ashworth Laboratories**  
**The University of Edinburgh**  
**Edinburgh**  
**EH9 3FL**  
**UK**  
**Telephone: +44(0) 131 651 7840**

#### Return of Results

- The exact format for results return will be discussed to meet individual requirements.