



Dublin Academic Medical Centre

Standard Operating Procedure Dublin Academic Medical Centre UCD Clinical Research Centre

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Version Number 1
SOP Title Processing of Buccal Swabs

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Purpose

To outline the laboratory procedure for processing buccal swabs.

Specific procedure

1. Collecting cheek cells is an easy, non-invasive method to obtain samples from animals or humans for DNA analysis.
2. Remove a sterile single use cotton swab. Observe sterile techniques as you brush cotton swab inside the mouth along the cheek. Return the swap to a sterile wrapping or wrap the cheek swab inside sterile plastic wrap. Prepare Extraction Solution as follows:

Per 12 cheek swabs

1.5 ml 20% Chelex

4.5 ml ddH₂O

40.8 µl Proteinase K stock

Invert or swirl to gently mix Extraction Solution.

Aliquot 450 µl of Extraction Slurry to each labelled microcentrifuge tube.

Carefully unwrap cheek swab and place cotton tip into the Extraction Solution.

Incubate samples for 30 min at 65°C.

Incubate samples in a gently boiling water bath for 10 min. Allow samples to cool for 10 min and remove the swab. Store samples at 4°C.



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This isolation protocol can be used with any Phenol/Chloroform DNA extraction protocol.

PBS PH 7.2:

2.7 mM KCl

4.3 mM Sodium Phosphate Dibasic (Na_2HPO_4)

1.8 mM Potassium Phosphate Monobasic (KH_2PO_4)

137 mM NaCl

Proteinase K Stock

20 mg/ml Proteinase K

Store at -20°C

20% (w/v) Chelex

DNA can also be extracted following the procedure described in SOP 3.1.2

RNA and protein extraction, are not recommended from cheek cells because of the small number of cells.



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Change History

SOP no.	Effective Date	Significant Changes	Previous SOP no.