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NEW GENERATION Tissue homogenizer
SAMPLE PREPARATION & CELL LYSIS

precellys 24
lysis & homogenization

RNA extraction from mouse embryonic tooth germs in 0.5mL vial

Functional Genomics Institute of Lyon (France)

CONTEXT

Our team aims at better understanding how a morphology arises during development in connection with gene expression, and how it changes during evolution. For that purpose, we are using the rodent molar as an organ model.

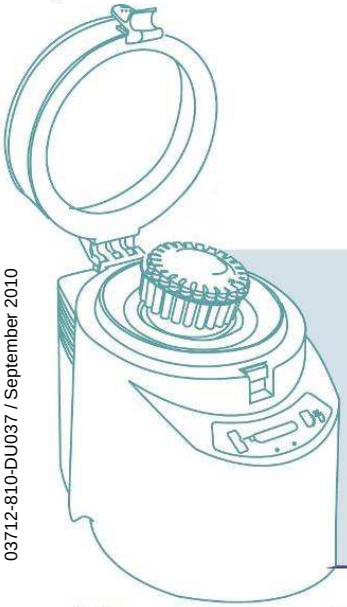
In order to study gene expression during tooth development, developing tooth germs (soft tissue) were dissected from mouse embryos (15-16 days post coïtum) and stored in RNA later.

MATERIAL

- Precellys®24.
- Precellys® kit: 03961-1-203 (ceramic beads 1.4mm – 0.5ml tubes).
- Sample: mouse embryonic tooth germs previously in RNA later, rough estimate: 0.75mg for 6 tooth germs.
- Buffer: 200 µl lysis buffer (RLT+ β-mercaptoethanol).

PROTOCOL

- Precellys®24 parameters: 5500 rpm, 2x10 sec - 10s break.
- Purification method: Qiagen RNeasy Micro kit.
- Analysis: Agilent Bioanalyser 2100.



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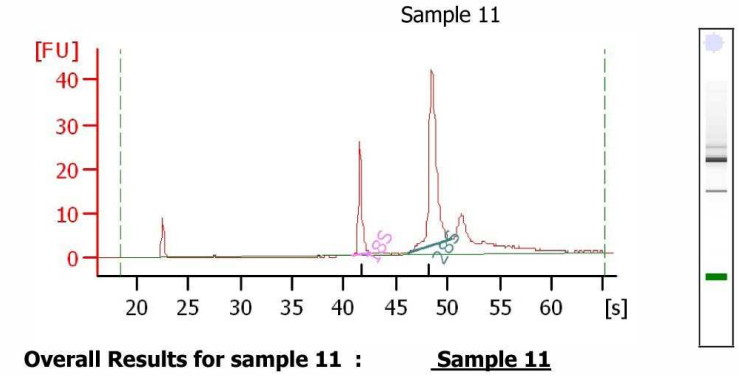
RESULTS

RNA extracted was of very good quality (RIN = 10).

The yield was closed to theoretical yield for embryonic tissues (theoretical: 1.5µg; obtained: 1 to 1.4 µg).

Note: Increasing lysis time (5500 rpm 2x 20s (10s)) did not lead to any yield improvement.



Overall Results for sample 11 : **Sample 11**

RNA Area:	155.3
RNA Concentration:	121 ng/µl
rRNA Ratio [28s / 18s]:	2.9
RNA Integrity Number (RIN):	10 (B.02.07)
Result Flagging Color:	
Result Flagging Label:	RIN:10

Figure 1: typical profile obtained on Agilent Bioalnalyser 2100 following lysis with Precellys®24 and purification with Qiagen RNeasy micro kit.

CONCLUSION

The homogenization with **Precellys®24** is efficient and lead to a total RNA of good quality.

The **Precellys®Lysing kit 0.5mL** 1.4mm ceramics beads is appropriate to have a quick and effective homogenization of a low amount of sample (<1 mg).

Problem

Solution

For more details, please contact precellys@bertin.fr

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ISO 9001 BUREAU VERITAS Certification

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