

RNA extraction from human colon National Yang-Ming University - Taiwan

CONTEXT

The Center is focused on high-throughput genome analysis.

The goal of this work is to compare three equipments dedicated to the homogenization of human colon tissues to extract total RNA.

MATERIAL

- Precellys®24.
- Precellys kits: 03961-1-002 (2.8mm ceramic beads)
- Competitors M and competitor Q.
- Sample: 30 mg of human colon tissue.
- Buffer: Trizol.

PROTOCOL

- Precellys®24: 2.8mm ceramic beads, 2 mL vials, 250 µl Trizol, 6500 rpm, 2x10s (10s break) and 6500 rpm, 1x15s (8s break).
- Competitor M: 1.4mm ceramic beads, 200 µl Trizol, 6500 rpm, 50 sec.
- Competitor Q: 5mm metal bead, 350 µl Trizol, 30 1/s, 2 min; 2x.
- Total RNA extraction: Trizol extraction method.

RESULTS

The figure 1 illustrates the total RNA yield extracted from Human colon tissues with the three homogenizers tested. The table 1 shows the RNA quality parameters for RNA extracts.

Figure 1

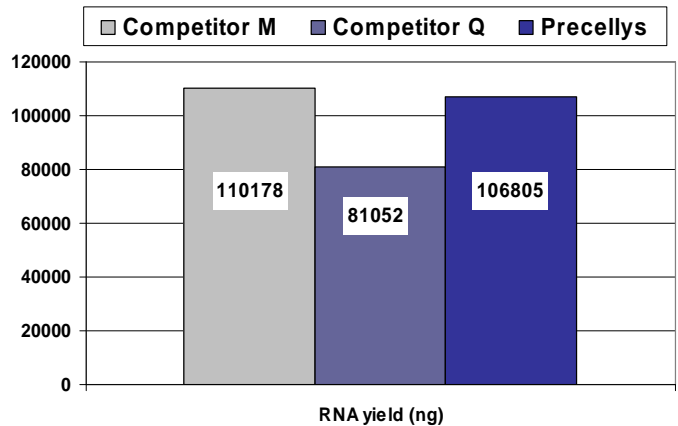
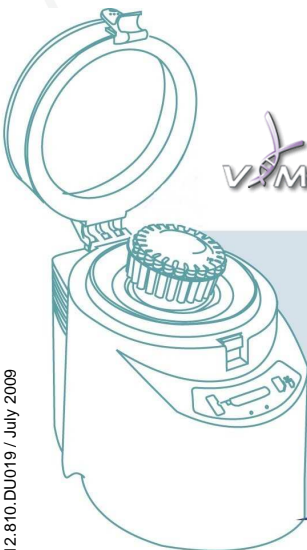


Table 1

	A260/280	A260/230	Total RNA Conc. (ng/ul)	RNA yield	RIN
Competitor M	1,99	2,14	1836,30	110178,00	7,40
Competitor Q	1,92	2,24	1350,87	81052,20	7,40
Precellys	1,99	2,20	1780,08	106804,80	7,30



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CONCLUSION

Equivalent **total RNA extraction** is obtained with **Precellys®24 homogenizer** and Competitor M and lower with Competitor Q. The RIN and the $A_{260/280}$ show a very good quality of RNA extracted.

The benefits of using the **Precellys®24** compared with previous method are time and work saving.

For more details, please contact precellys@bertin.fr

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Problem



Solution

