RNA extraction from *Streptomyces* (Actinobacteria)
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**CONTEXT**

Validamycin is a non-systemic antibiotic with fungicide action. It is most effective against damping-off diseases and is used for protecting seedling and clone cuttings.

Our lab is focused on Functional Analysis of the Validamycin Biosynthetic Gene Cluster and Engineered Production of Valdoxylamine-A. This study compares the efficiency of total RNA isolation in using the Precellys®24 vs. Enzymatic lysis.

**MATERIAL**

- Precellys®24
- Precellys® kit VK01
- Sample : *Streptomyces* Streptomycin (20mg of mycelium)
- Qiagen RNAeasy Mini Kit
- Buffer : Trizol or lysozyme (3mg/mL)

**RESULTS**

Total RNA extracted is visualized by ethidium bromide staining and UV illumination.

Lane 1 : total RNA extracted with Precellys®24 homogenization
Lane 2 : total extracted RNA with enzymatic lysis

RNA quantity was found to be 2.5 times higher for Precellys®24 samples when compared to Enzymatic lysis.

**CONCLUSION**

A higher RNA quantity was obtained by using Precellys®24 when compared to Enzymatic lysis. In addition to time saving, easy handling and reproducibility of the results, the Precellys®24 increases the experiment output.

[For more details, please contact precellys@bertin.fr or visit our website](http://www.technosaurus.co.jp)