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Wet Chemistry RNA Isolation Method for Mature Cassava Leaf Tissue

Lynn Doran¹¹Realizing Increased Photosynthetic Efficiency (RIPE)

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protocol .

Burgess Lab UIUC

Lynn Doran

Realizing Increased Photosynthetic Efficiency (RIPE)

RNA extraction protocol for cassava for RNA of sufficient quality and quantity to perform RT-PCR gene expression studies.

Low recovery was achieved using Qiagen RNeasy kit. Typical recoveries using the mini protocol outlined here yielded 500-1300 ng/ul RNA from ~ 75 mg leaf tissue.

Cassava RNA
Extraction.docx

<https://febs.onlinelibrary.wiley.com/doi/10.1002/2211-5463.12561>

Lynn Doran 2022. Wet Chemistry RNA Isolation Method for Mature Cassava Leaf Tissue. **protocols.io**

<https://protocols.io/view/wet-chemistry-rna-isolation-method-for-mature-cass-b8kgrutw>



protocol

Behnam, Babak, Adriana Bohorquez-Chaux, Oscar Fernando Castaneda-Mendez, Hiroyuki Tsuji, Manabu Ishitani, and Luis Augusto Becerra Lopez-Lavalle. "An Optimized Isolation Protocol Yields High-Quality RNA from Cassava Tissues (Manihot Esculenta Crantz)." FEBS Open Bio 9, no. 4 (2019): 814–25. <https://doi.org/10.1002/2211-5463.12561>.

RNA, RNA Extraction, Cassava

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- This protocol uses [chemical fume hoods](#) and [centrifuges](#). Understand how to safely and appropriately use them before performing the protocol.
- Perform all steps within a fume hood and collect tips and tubes in the hazardous material collection bins. β -mercaptoethanol (β -ME) included in the extraction buffer is toxic, harmful to the environment and corrosive. Collect hazardous waste and [submit to UIUC DRS](#) following proper protocol.
- Some of the chemicals used in this protocol pose serious health risks. Please read all manufacturer safety data sheets before handling. UIUC personnel performing this protocol should be current on "[Laboratory Safety](#)", "[Chemical Safety- An Introduction](#)", and "[Chemical Spills](#)" [Division of Research Safety](#) training modules before performing this protocol.