

## Compared two methods for isolating RNA from freezing and nonfreezing bread wheat (*Triticum aestivum* L.) plant tissues

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### Abstract

This report described an improved method for isolating intact purified RNA from freezing organs of bread wheat plants. High-quality RNA is important in studying gene expression. Common RNA extraction protocols have produced poor yields because freezing leaves contain polysaccharides and RNases. We used two methods for isolating RNA and compared them. CTAB (cetyltrimethylammonium bromide) method protocol is based on a guanidine thiocyanate extraction combined with additional purification steps using butanol and the ionic detergent CTAB. Using this protocol, RNA yields ranged from 40-70 µg of total RNA 100 mg of fresh tissue. This method can be adapted to large-scale isolations, allowing the recovery of larger amounts of intact RNA (up to 100 µg g<sup>-1</sup> of fresh tissue). © 2018 Asian Network for Scientific Information.

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