

microRPM: a system for novel microRNA prediction

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Introduction

- MicroRNAs are important gene regulators in different biological pathways and species.
- The next generation sequencing (NGS) technology is widely applied to identify miRNAs. However, precursor/genomic sequences were usually required as references for most prediction methods.

Aims and Results

- An effective plant miRNAs prediction system (microRPM) was developed in this study.
- The plant miRNAs could be identified based only on NGS datasets without reference sequence.

Model	Organism	Sensitivity (%)	Specificity (%)	Precision (%)	Accuracy (%)	Reference sequence
microRPM	Arabidopsis	98.15	95.07	95.22	96.61	No
	Rice	94.91	91.17	91.49	93.04	No