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A new and easy way to purify nucleic acids from rice leaves roots and kernels

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Rice is the predominant staple food for world's population. Recent advances in rice genomics represent a great step forward for improving agronomical performances. Extraction and purification of high quality nucleic acids are a prerequisite for such approaches and providing reliable tools is a challenging objective for scientific community. Sample diversity and the variety of extracellular structures make lysis and extraction difficult and lead to decreased nucleic acid yields. Moreover, different endogenous plant compounds can co-purify with nucleic acids and interfere with quantitation and downstream amplifications. These difficulties highlight the need for robust, reliable chemistries for molecular biology studies in rice plant. We present several solutions to purify and amplify DNA and RNA from different *Oryza sativa* tissue types (e.g. leaves, roots, kernels). We developed both manual (ReliaPrep™) and automated approach using novel cellulose-based paramagnetic particles (Maxwell® Systems). We also developed a protocol for High-Throughput applications. Our data show the capacity of our extraction systems to provide high quality nucleic acids reliable for studying rice genes and genome.

Biography

Sharon is present work in Promega Corporation,Singapore.

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