



Simple, quick DNA
isolation method from
plant samples



MAGNETIC NANOPARTICLE BASED

PLANT DNA ISOLATION PROTOCOL

1

Lysis

2

Binding

3

Washing

4

Elution

XpressDNA Plant Kit

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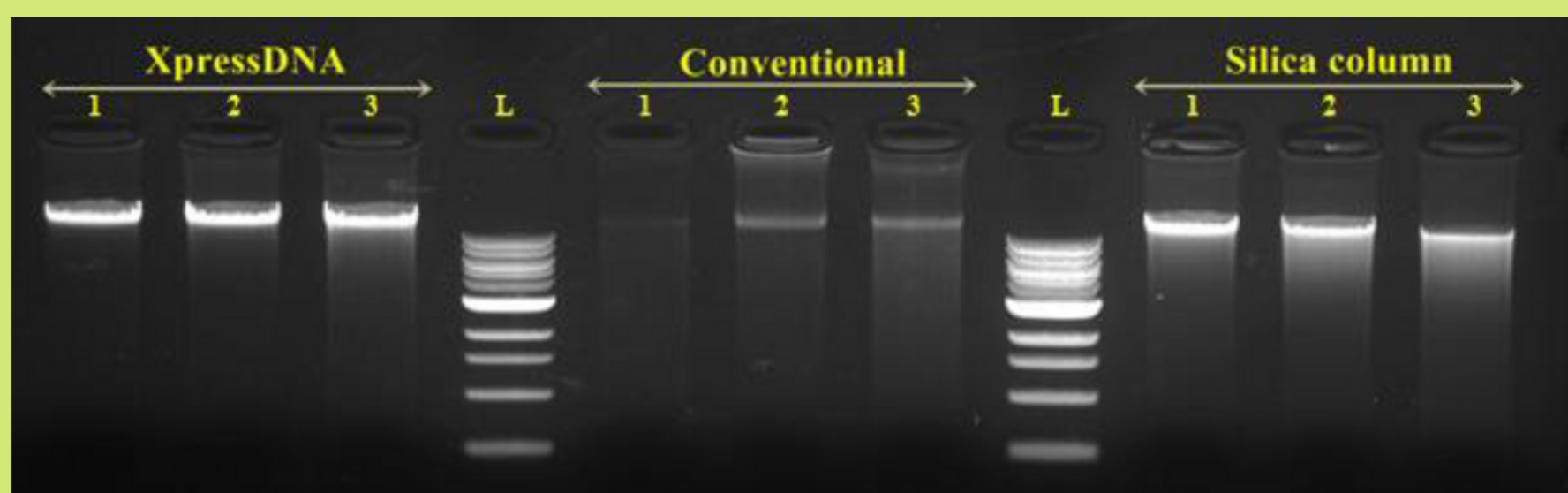


Product Description

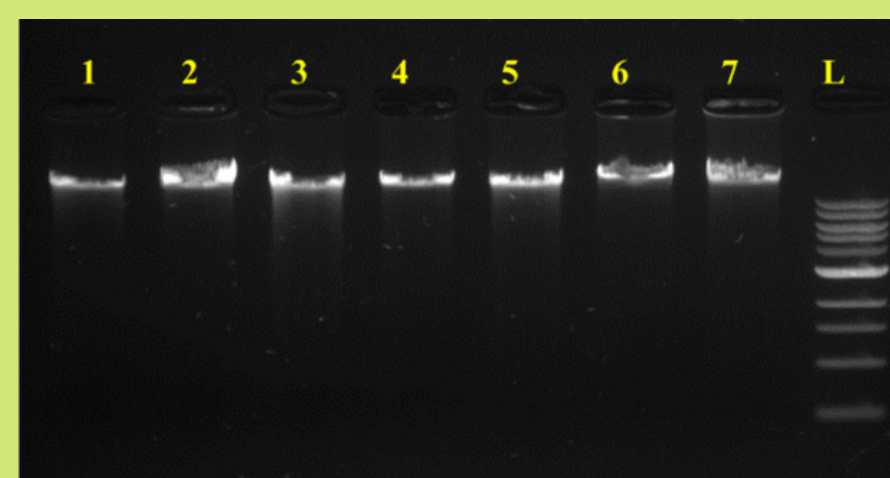
XpressDNA Plant kit ensures the quick and easy extraction of pure, contaminant free DNA from various plant species and tissue types like leaf, seeds, stem, roots and other plant parts. DNA extraction from plant is highly challenging due to the sample heterogeneity and presence of cellular components like polysaccharides, secondary metabolites like polyphenols, terpenoids, alkaloids etc .

Highlights

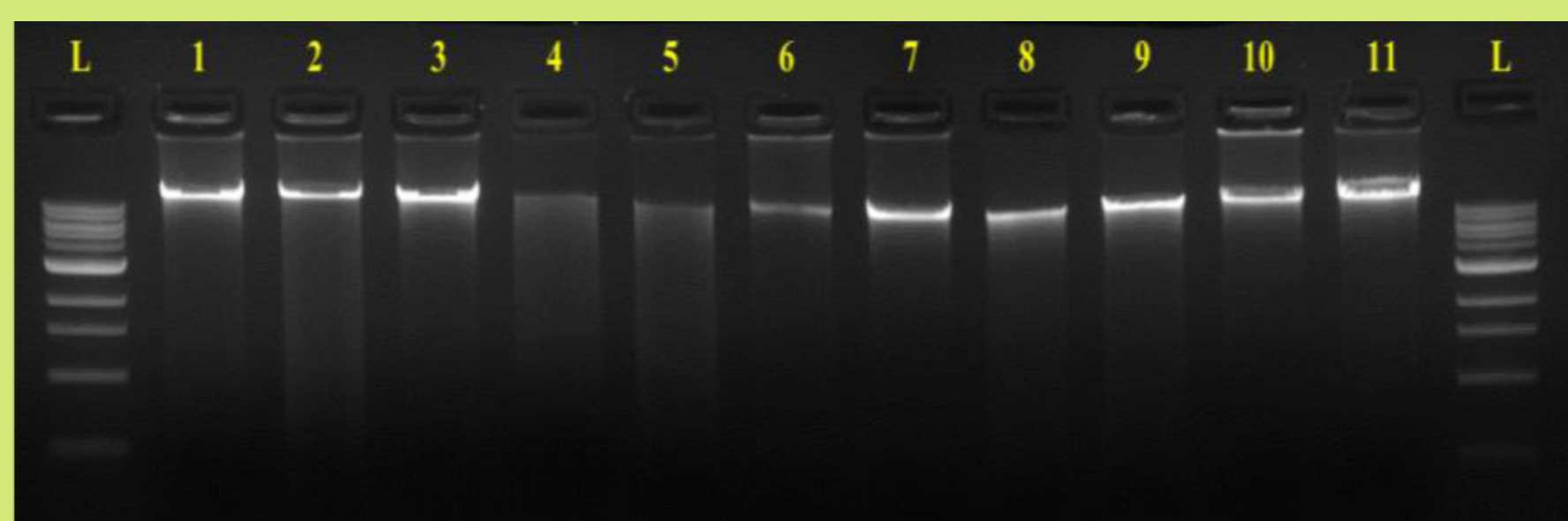
- Pure contaminant free DNA
- High quality DNA: A 260/A 280 1.65 - 1.90
- High yield ranging between 1µg - 23µg/ 100mg tissue
- Universal kit for difficult plant parts like dry seeds, stem and roots
- No phase separation in the process
- No frequent centrifugations needed
- Optional step of concentrating the DNA is achieved with same set of Magnetic Nanoparticles
- Enables extraction of genomic DNA of size >50kb, suitable for NGS platforms like PacBio and Nanopore



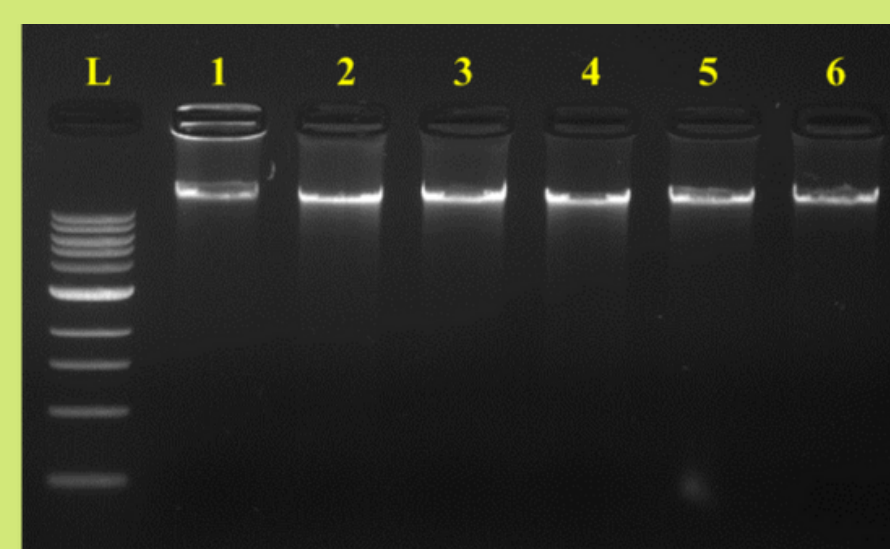
Comparison of genomic DNA extraction from leaf using three different methods: Including XpressDNA Plant Kit, Conventional phenol chloroform extraction and Spin column based commercial kit: 1. *Vigna sp.*(Cowpea) 2. *Passiflora edulis*(Passion fruit) 3. *Hevea brasiliensis*(Rubber) L. 1kb ladder



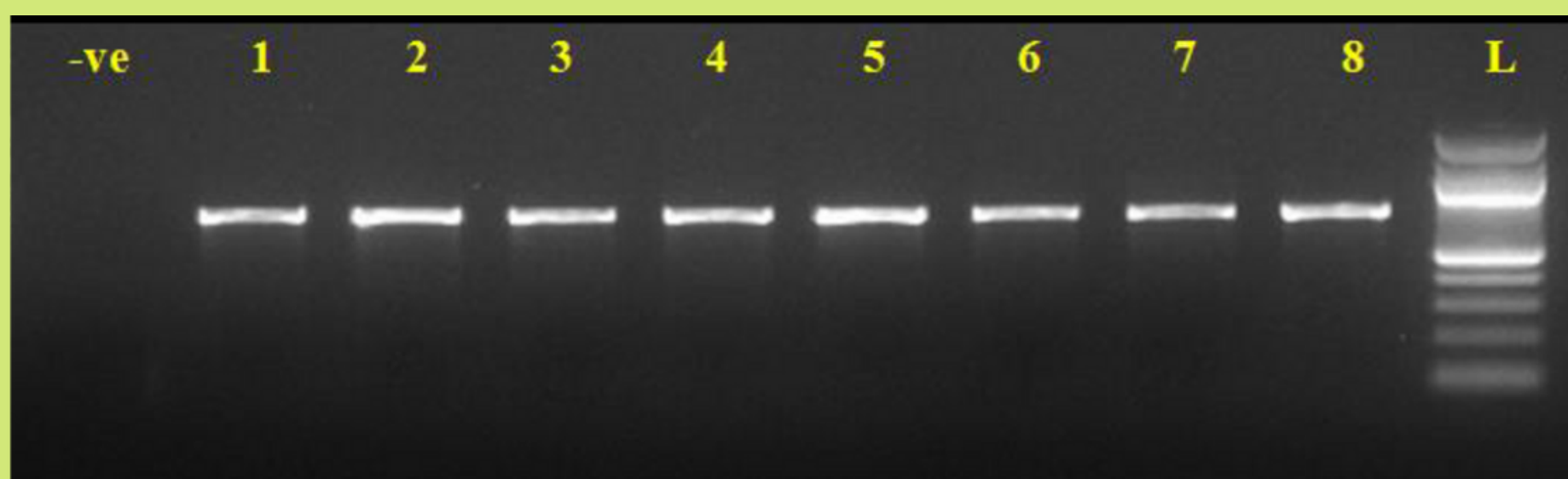
AGE profile of genomic DNA from leaves using XpressDNA Plant Kit: 1. *Azadirachta indica*(Neem) 2. *Brassica nigra*(Mustard) 3. *Mangifera indica* (Mango) 4. *Heliconia sp.* 5. (Guava) 6. *Nerium sp.* 7. *Artocarpus heterophyllus* (Jack fruit) L. 1kb ladder



AGE profile of genomic DNA from dry seeds: L. 1kb Ladder 1. *Vigna sp.*(Red cowpea), 2. *Triticum aestivum*(Wheat), 3. *Cicer arietinum*(Chickpea), 4. *Sesamum indicum*(Sesame), 5. *Coriandrum sativum* (Coriander), 6. *Trigonella foenum-graecum* (Fenugreek), 7. *Helianthus annuus* (Sunflower), 8. *Oryza sativa* (Rice), 9. *Pennisetum sp.* (Millet), 10. *Brassica nigra*(Mustard), 11. *Vigna radiata*(Mung bean)



AGE profile of genomic DNA of leaves using XpressDNA Plant Kit: L. 1kb Ladder 1. *Morus sp.* (Mulberry), 2. *Hevea brasiliensis* (Rubber), 3. *Justicia sp.*(Malabar nut tree), 4. *Piper nigrum*(Black pepper), 5. *Citrus limon* (Lemon), 6. *Ocimum sp.* (Tulsi)



Downstream compatibility: PCR amplification of genomic DNA extracted using XpressDNA Plant Kit from eight different leaves using rbcL primer