

## Plant Tissue Genomic DNA Isolation Kit

**Cat. No.** Kit-2106    **Lot. No.** (See product label)

### SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
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| <b>Product Overview</b> | The Plant Genomic DNA Isolation kit enables the researchers to isolate genomic DNA from plant leaves, stalks, seeds, and roots. This kit utilizes an efficient combination of lysis buffer and enzymes that work in unison to disrupt the cell wall, eliminate plant specific contaminating compounds, and release free genomic DNA. DNA release from the cell is coupled with adsorption of DNA onto a silica spin-column under chaotropic conditions, eliminating the use of toxic organic compounds or solvents. This kit yields pure DNA that is suitable for various downstream molecular biology applications such as PCR, cloning, sequencing, DNA hybridization and Southern Blotting, etc. |
| <b>Size</b>             | 100 isolations                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Description</b>      | Plants serve a vital role in human nutrition, biofuels, and the ecosystem. Isolating DNA from plants is exceptionally challenging compared to other organisms due to the presence of difficult to disrupt cell wall and compounds such as tannins, phenolics, and complex polysaccharides that can affect DNA quality and inhibit downstream reactions.                                                                                                                                                                                                                                                                                                                                             |
| <b>Applications</b>     | Useful for PCR, Cloning, DNA hybridization, Southern Blotting                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Target Species</b>   | Plants                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Storage</b>          | Store kit at -20°C and RT, protected from light. Briefly centrifuge small vials prior to opening. Read entire protocol before performing the assay. Use DNase-free tubes and DNase-free aerosol tips at all times. Buffer L: Store at room temperature and                                                                                                                                                                                                                                                                                                                                                                                                                                          |

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reconstitute a desired amount with 10mM DTT immediately before use (e.g. add 4μL of 1M DTT to 396μL of Buffer L). Note: Do not store unused Buffer L reconstituted with DTT. Buffer B: Add 28 mL of 100% Ethanol, molecular biology grade. Mix well and store at room temperature. Buffer W: Add 136 mL of 100% Ethanol, molecular biology grade. Mix well and store at room temperature. Buffer E: Ready to use. Store at room temperature. Enzyme Mix and RNaseA: Ready to use. Store at -20°C. Keep on ice at all times while in use. Spin Columns: Ready to use. Store at room temperature in dry conditions.

**Kit Components**

Buffer L [Lysis Buffer]: 40 ml; RT 1M DTT: 400 μl; -20°C Enzyme Mix: 2 x 1.0 ml; -20°C RNase A: 2 x 1.0 ml; -20°C Buffer B [Binding Buffer]: 25 ml; RT Buffer W [Wash Buffer]: 30 ml; RT Buffer E [Elution Buffer]: 22 ml; RT Spin Columns/Collection Tubes: 100 tubes; RT

**Compatible Sample Types**

Fresh or dry leaf, root, and seed plant tissues

**Features & Benefits**

Simple & rapid method to isolate highly pure, intact DNA from plant

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