

TransDirect® Plant Tissue PCR Kit

Cat. No. AD301

Storage: 2×TransDirect® PCR SuperMix (+dye) at -20°C for two years, others at room temperature (15-25°C) for two years

Description

TransDirect® Plant Tissue PCR Kit uses a unique lysis buffer to lyse plant tissues (fresh or frozen). The resulting lysate without purification can be directly used as PCR template. 2×TransDirect® PCR SuperMix (+dye) is highly resistant to various PCR inhibitors present in plant tissues. PCR product can be directly used for gel electrophoresis.

Highlights

- No DNA extraction needed.
- Ready-to-use SuperMix.
- DNA fragment up to 2 kb.
- For plants with moderate contents of polysaccharides or polyphenols.

Applications

- Direct amplification from unpurified lysate. Suitable for high throughput applications.
- Amplification of genomic DNA fragment up to 2 kb.

Kit Contents

Component	AD301-01	AD301-02
PD1 Buffer	4 ml	20 ml
PD2 Buffer	4 ml	20 ml
2×TransDirect® PCR SuperMix (+dye)	1 ml	5×1 ml
Nuclease-free Water	5 ml	25 ml

Please prepare 95°C water bath or heater. If a white precipitate appears, dissolve it by heating at 55°C before use.

Genomic DNA Extraction

- Cut 5 mg or 0.5 cm² plant tissues and add it to a tube containing 40 µl of PD1 buffer, vortex.
- Incubate at 95°C for 10 minutes (for hard-to-lyse tissues, we suggest incubating at 95°C for 30 minutes).
- Add 40 µl of PD2 Buffer and vortex to mix. The lysate can be used as PCR template or stored at 2-8°C for three months or at -20°C for six months.

Reaction Components

Component	Volume	Final Concentration
Unpurified lysate	Variable (≤ 4 µl)	as required
Forward Primer (10 µM)	0.4 µl	0.2 µM
Reverse Primer (10 µM)	0.4 µl	0.2 µM
2×TransDirect® PCR SuperMix (+dye)	10 µl	1×
Nuclease-free Water	Variable	-
Total volume	20 µl	-

Thermal cycling conditions

94°C	5-10 min	} 35-40 cycles
94°C	30 sec	
50-60°C	30 sec	
72°C	1-2 kb/min	
72°C	5-10 min	



Notes

- Completely thaw the contents in the tube and mix well before use.
- If faint bands are observed, use more PCR template or increase the number of PCR cycles (no more than 40 cycles).
- If non-specific amplification bands are observed, adjust the annealing temperature or properly reduce the quantity of template used.
- The extracts can be stored at 2-8°C for three months or at -20°C for six months.

For research use only, not for clinical diagnosis.

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