NIPPON Genetics EUROPE

Application

Purification of PCR products of fine roots (endospermatis) of Cherry Trees

Product: FastGene® Gel / PCR Extraction Kit（FG-91202, FG-91302）
FastGene® Gel Band Cutter（FG-830）

Manufacturer: NIPPON Genetics EUROPE GmbH

The following data was published due to Yasushi Tamai of Forest Resource Biology, School of Agriculture Hokkaido University, Japan

Method

● Samples:
Rootlet of Cherry trees (with endogenous Hyphomycetes)

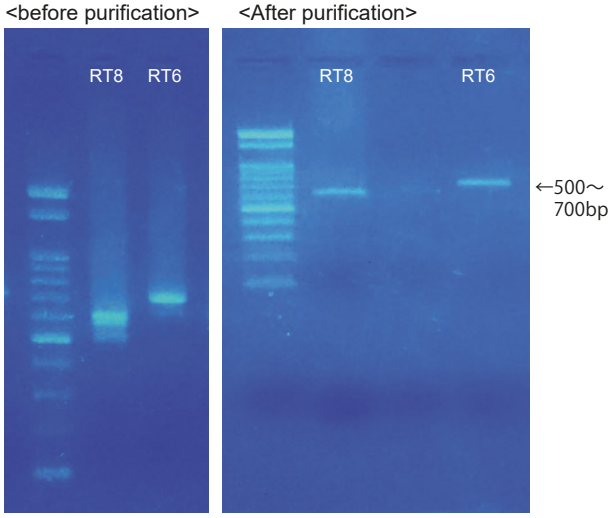
● Procedure:
1. DNA isolation using ISOPLANT (NIPPON Gene)
2. Enzyme used for PCRGene RED PCR Mix Plus（NIPPON GENE）
3. Electrophoresis: 2% agarose gel (TBE), 100V, 30 min
4. Fragments（500 ～700bp）were excised using the FastGene® Gel Band Cutter (FG-830)
5. DNA was recovered from agarose using FastGene® Gel/PCR Extraction Kit（FG-91302）
6. 30 µL of eluted GP3 buffer was analysed using previously described method (Step 3).
7. Eluted DNA was analysed by sequencing.

Root of a cherry tree (Scale: 1 mm)

Result

● Electrophoretic result

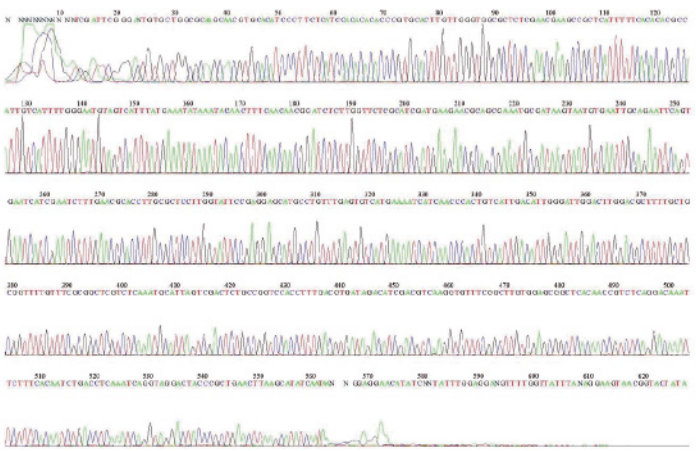
<before purification> <After purification>



PCR Products

Eluted product from purified DNA using a FastGene® Gel Band Cutter

● Sequencing analysis



● Summary

A plurality of fungi are endogenously generated in the root of a tree. So there are a plurality of PCR products obtained even if a filamentous fungus-specific primer is used. The problem of sequencing multiple bands was avoided by using the FastGene® Gel Band Cutter (FG-830). Sequencing was performed without problems using the FastGene® Gel Band Cutter (FG-830) and the FastGene® Gel/PCR Extraction Kit (FG-91302).

Customer's comment

The kit was purchased after noticing the easy handling when trying out a sample.
Single germ strains can be detected from multile PCR products by performing sequencing analysis of the single bands.

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