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(74) Representative: De Hoop, Eric
Octrooibureau Vriesendorp & Gaade B.V.
P.O. Box 266
2501 AW Den Haag (NL)

(71) Applicant: Plant Research International B.V.
6708 PB Wageningen (NL)

Remarks:

The sequence listing, which is published as annex to the application documents, was filed after the date of filing. The applicant has declared that it does not include matter which goes beyond the content of the application as filed.

(72) Inventors:
• Schouten, Henk J., c/o Plant Research Int. B.V.
6708 PB Wageningen (NL)
• Van der Linden, C. Gerard, Plant Res. Int. B.V.
6708 PB Wageningen (NL)

(54) Method for selective amplification of DNA fragments for genetic fingerprinting

(57) The invention discloses a method for preparing a reproducible selective set of DNA fragments from the DNA or cDNA of one or more organisms as a main step in a DNA fingerprinting method. The method comprises

- cutting DNA with one or more restriction enzymes to obtain a set of double stranded DNA fragments,
- ligating to the DNA fragments double stranded adapters that match the generated fragment ends, and
- performing a polymerase chain reaction using primers which are specific for the adapters to obtain the reproducible selective set of DNA fragments.

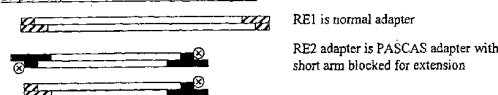
In step b) at least one modified adapter is used which is composed of two oligonucleotides that are only partly complementary, leaving at least one part of the adapter single stranded, in such a way that a complementary strand of said single stranded part of the adapter cannot be synthesized from an available 3'-end in the adapter itself, and in step c) the primer which is specific for the modified adapter, is identical or similar to the single stranded part of the adapter, such that only after complementation of the single stranded part of the adapter said primer can anneal to the complement, and in such a way that this primer can be extended in the direction of the ligation site.

FIG. 1

Step 1: Digest DNA with three restriction enzymes (RE1 (rare) and RE2 (frequent))



Step 2: Ligate RE1- and RE2-specific adapters



Step 3: PCR with RE1- and RE2-adapterspecific primers

