

## MK000074=M/451

**Marker:** M/451

**Type:** Dominant PCR

**Description:**

**Reference:** Euphytica 127: 353–365, 2002. PCR-based markers to differentiate the mitochondrial genomes of

petaloid and male fertile carrot (*Daucus carota* L.) Inga C. Bach, Annette Olesen & Philipp W. Simon,

**Primers:** nad6-d1 (c).....5' -GACTACTAAGGTGAAAAGACAGG-3'

cmt-17 (d).....5' -GCGAAATGCAATGCCCAACC-3'

**PCR Reaction:** 20 µl: [0.4 µg/ml DNA=8 ng; 0.4 µM each primer=8 pMol each; 0.025 U/µl Taq=0.5 U; 1.5 mM MgCl<sub>2</sub>=30 nMol; 0.1 mM each dNTP=2 nMol]

**PCR Program:** 94°C 2:00; 35 cycles of {94°C 1:00; 55°C 1:00; 72°C 2:30}; 72°C 7:00

**Screening Method:** Product size by agarose gel

**Product Sizes:** 451 bp in Sp cytoplasm; no product in N cytoplasm

**Example:**

**Diagram of how it works:**

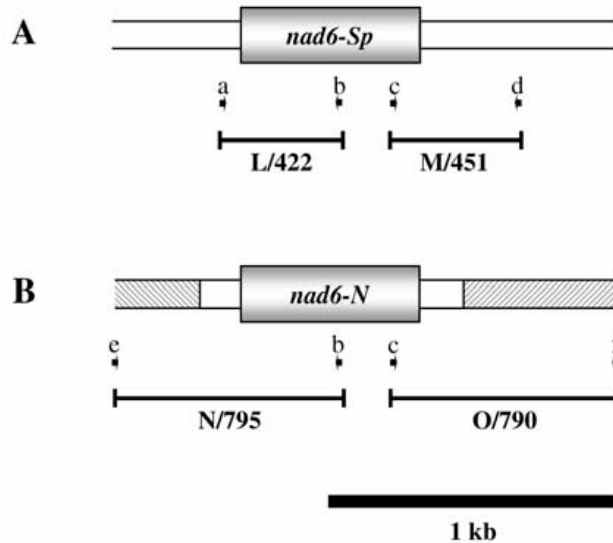


Figure 5. Configurations of *nad6* loci in K826A (A) and K831B (B). Crosshatching indicates nonhomologous regions. Thick arrows indicate annealing sites of the primers cmt-16 (a), nad6-u1 (b), nad6-d1 (c) cmt-17 (d) cmt-18 (e) and cmt-19 (f). The marker fragments, L/422, M/451, N/795 and O/790 are indicated as bars.

**Genbank reference:** The DNA sequences of the *nad6-Sp* and *nad6-N* loci have been assigned GenBank Accession Nos. [AY007819](#) and [AY007818](#), respectively.

**Sequence Information:**

**Map Location:**

**Published Reference:**

**Other Information:**

**Primer Location (lab specific):** Box 0 X0

**PCR Program Name (lab specific):**