

## MK000066=E/1100

**Marker:** E/1100

**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:** cmt-6 (a).....5' -GGCAACAGCTGACCACGGTTC-3'

cmt-7 (c).....5' -ATTGCGGCCTTCGCTCCTCGC-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:** 1100 in Sp cytoplasm; no product in N cytoplasm

**Example:**

**Diagram of how it works:**

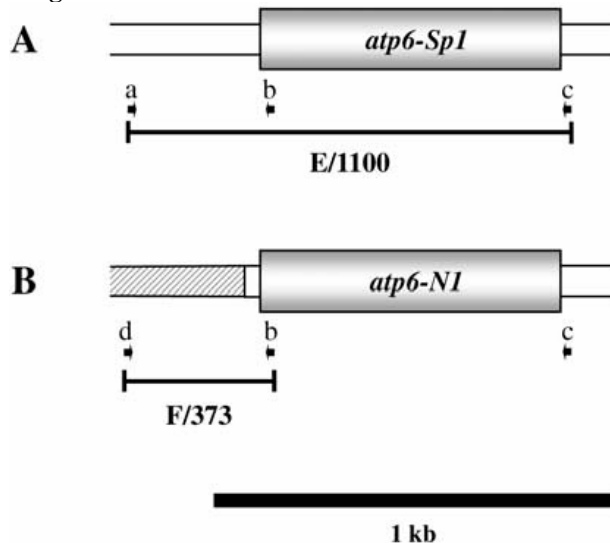


Figure 2. Configurations of *atp6* genes in K826A (A) and K831B (B). Open reading frames (ORFs) are indicated by large shaded boxes and intergenic regions by open boxes. Nonhomologous regions are indicated by crosshatching. Thick arrows labeled a-d indicate annealing sites of the primers cmt-6 (a), *atp6-u1* (b), cmt-7 (c) and cmt-8 (d). PCR amplification products serving as markers are indicated by bars labeled E/1100 and F/373.

**Genbank reference:** The DNA sequences of the *atp6-Sp1* and *atp6-N1* loci have been assigned GenBank Accession Nos. [AY007817](https://www.ncbi.nlm.nih.gov/nuccore/AY007817) and [AY007824](https://www.ncbi.nlm.nih.gov/nuccore/AY007824), respectively.

**Sequence Information:**

**Map Location:**

**Published Reference:**

**Other Information:**

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

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