

## MK000077=P/1229

**Marker:** P/1229

**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-20 (a).....5'-CTTACCGATGTTCTTTCAAGG-3'

cob-u2 (c).....5'-GCTTTGTCAGGTATACTACG-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:** 1229 bp in Sp cytoplasm; no product in N cytoplasm

**Example:**

**Diagram of how it works:**

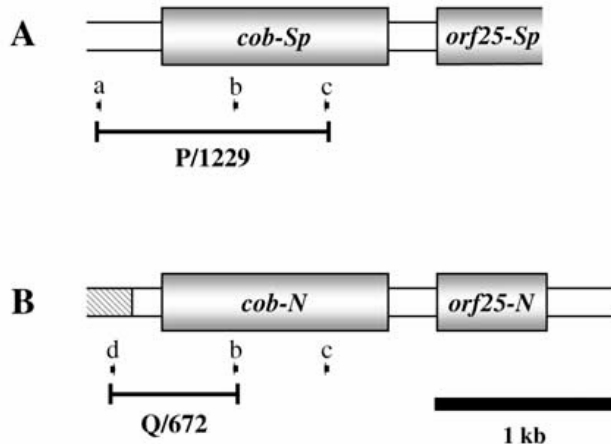


Figure 6. Configurations of *cob-Sp* (A) in K826A and *cob-N* (B) in K831B. The crosshatched region upstream from *cob-N* had no homology to the 5'-flanking region of *cob-Sp*. Thick arrows indicate annealing sites of the primers cmt-20 (a), cob-u1 (b), cob-u2 (c) and cmt-21 (d). The marker fragments P/1229 and Q/672 are indicated as bars. The DNA sequences of the *cob-Sp* and *cob-N* loci have been assigned GenBank Accession Nos. [AY007821](http://www.ncbi.nlm.nih.gov/nuccore/AY007821) and [AY007816](http://www.ncbi.nlm.nih.gov/nuccore/AY007816), respectively.

**Genbank reference:**

**Sequence Information:**

**Map Location:**

**Published Reference:**

**Other Information:**

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

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