

Supplement Methods

Variant-rDNA-specific PCR

No SNP was identified to distinguish v-rDNA I and II (i.e. their sequences were identical within the sequenced region of 5'-ETS). They were therefore always assayed together. For a given tissue sample, all PCRs were performed with the same cDNA preparation.

Regular PCR

v-rDNA	primers	(1X) buffer	thermal cycle
I	5'-cca gct gtg gtt gag ggc ca 5'-cgc tgg cag aac gag aag aa	10 mM Tris-HCl, pH 8.8; 1.5 mM MgCl ₂ ; 75 mM KCl	94°C 5 m; {94°C, 30 s; 69°C, 30 s; 72°C, 40 s} x 35; 72°C, 7 m
II	Same as I	Same as I	Same as I
III	5'-ccg agt act tct cct gtc tg 5'-gcc acc ggc cac atc cac ca	Same as I	94°C 5 m; {94°C, 30 s; 66°C, 30 s; 72°C, 1.5 m} x 35; 72°C, 7 m
IV	5'-cca gct gtg gtt gag ggc cg 5'-aag ctc ccc acg gga aag cc	Same as I	94°C 5 m; {94°C, 30 s; 65°C, 30 s; 72°C, 1.2 m} x 35; 72°C, 7 m
V	5'-gtg act ttg cgt gtc aga ct 5'-aca cac cac cgg cag acg gg	Same as I	94°C 5 m; {94°C, 30 s; 68°C, 30 s; 72°C, 1.5 m} x 35; 72°C, 7 m
VI	5'-gtg act ttg cgt gtc aga ct 5'-aca cgt gag ggc aca acc gg	Same as I	94°C 5 m; {94°C, 30 s; 67°C, 30 s; 72°C, 40 s} x 40; 72°C, 7 m
VII	5'-ctc ttg ttc tgt gtc tgt at 5'-gat ccc tcc ccg aac tcg gg	10 mM Tris-HCl, pH 8.3; 3.5 mM MgCl ₂ ; 25 mM KCl	94°C 5 m; {94°C, 30 s; 62°C, 30 s; 72°C, 1.5 s} x 35; 72°C, 7 m
47S	5'-tgt gac aac tgg gcg ctg tg 5'-cac tga gaa aag tgc gcg cg	Same as I	94°C 5 m; {94°C, 30 s; 66°C, 30 s; 72°C, 40 s} x 35; 72°C, 7 m

Real Time PCR

v-rDNA	primers	Reaction mix	thermal cycle
I	5'-cca gct gtg gtt gag ggc ca 5'-cgc tgg cag aac gag aag aa	10 microliters master mix, 5 microliters of primers and 5 microliters of template	95°C 10 m; {94°C, 10 s; 68°C, 15 s; 72°C, 40 s, read} x 35, 72°C, 10 m
II	Same as I	Same as I	Same as I
III	5'-ccg agt act tct cct gtc tg 5'-gcc acc ggc cac atc cac ca	Same as I	95°C 10 m; {94°C, 10 s; 66°C, 15 s; 72°C, 80 s, read} x 45, 72°C, 10 m
IV	5'-cca gct gtg gtt gag ggc cg 5'-aag ctc ccc acg gga aag cc	Same as I	95°C 10 m; {94°C, 10 s; 65°C, 15 s; 72°C, 40 s, read} x 45, 72°C, 10 m
V	5'-gtg act ttg cgt gtc aga ct 5'-aca cac cac cgg cag acg gg	Same as I	95°C 10 m; {94°C, 10 s; 68°C, 15 s; 72°C, 40 s, read} x 35, 72°C, 10 m
VI	5'-gtg act ttg cgt gtc aga ct 5'-aca cgt gag ggc aca acc gg	Same as I	95°C 10 m; {94°C, 10 s; 66°C, 15 s; 72°C, 40 s, read} x 45, 72°C, 10 m
VII	5'-ctc ttg ttc tgt gtc tgt at 5'-gat ccc tcc ccg aac tcg gg	Same as I	95°C 10 m; {94°C, 10 s; 62°C, 15 s; 72°C, 40 s, read} x 45, 72°C, 10 m
47S	5'-tgt gac aac tgg gcg ctg tg 5'-cac tga gaa aag tgc gcg cg	Same as I	95°C 10 m; {94°C, 10 s; 66°C, 15 s; 72°C, 40 s, read} x 35, 72°C, 10 m

The bold letters in primer sequence indicates the SNPs that are specific to the v-rDNA subtype.