



**Supplemental data #1 : Quantification by Dot-blot of *RIRE1* in *O. australiensis* genome.**

To determine the number of copies of *RIRE1* in the genome of *O. australiensis*, various concentrations of internal and LTR fragments of *RIRE1*, and genomic DNA of *O. australiensis* were blotted onto Hybond-N+ membranes using a DOT-BLOT apparatus and hybridized with internal (A) and LTR (B) probes of *RIRE1*. Stringency washes were performed at 65°C in 0.5x SSC. Autoradiograms were scanned and the intensity of each hybridization signal was measured using the ImageQuant software. As an example, the results given here show that 4 ng of internal fragment of *RIRE1* corresponded to 125 ng in the genome of *O. australiensis*. Thus,  $4/125 \times 965 \text{ Mb}$  (genome size of *O. australiensis*) = 31 Mb of this fragment of *RIRE1*. In order to obtain the number of copies, we divided this size by the size of the probe (31  $\cdot 10^6/1020$  pb) and thus obtained 30,000 copies of *RIRE1* in the genome of *O. australiensis*. To have the total size of *RIRE1* in this genome, we multiplied the number of copies by the size of *RIRE1* ( $30,000 \times 8,300$  pb). This gave an estimate of 250 Mb of the full element of *RIRE1* in *O. australiensis*. The same experiment was carried out with the LTR probe: We obtained 70,000 copies of LTR i.e. 10,000 copies of solo LTR of *RIRE1* in *O. australiensis*. The same experiment was repeated eight times for each probe, allowing to provide a mean and a standard deviation of the copy numbers given in table 1.