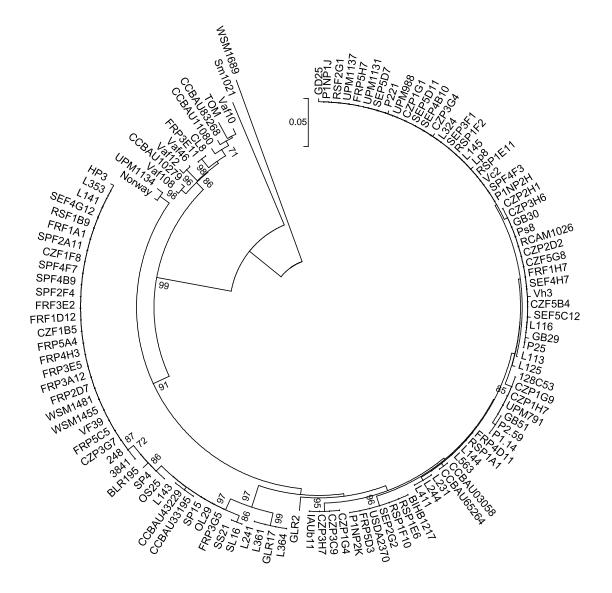


**Supplementary figure S1**. Variation of the EPC index. The variation coefficient (CV%) was calculated for the 4 biological replicates of the 26 barcodes monitored in the 9 plant co-inoculated plant genotypes (n=224). Conditions with 2 repeats displaying no reads were excluded of the analysis (n=10). Histogram of CV% is presented. Half of the samples displayed CV variations <50%.



## Supplementary figure S2: NodD309 barcode diversity among *Rhizobium leguminosarum* sv. *viciae.*

Phylogenetic tree of the nodD309 sequences present in the 121 genomes of *Rhizobium leguminosarum* sv. *viciae* selected for this study. WSM1689 (*R.leguminosarum sv. trifolii*) and *Sinorhizobium meliloti* 1021 have been used as outgroups.