

Figure S3: Identification process of isolates of lactic acid bacteria by molecular methods. CECT (Spanish Type Culture Collection).

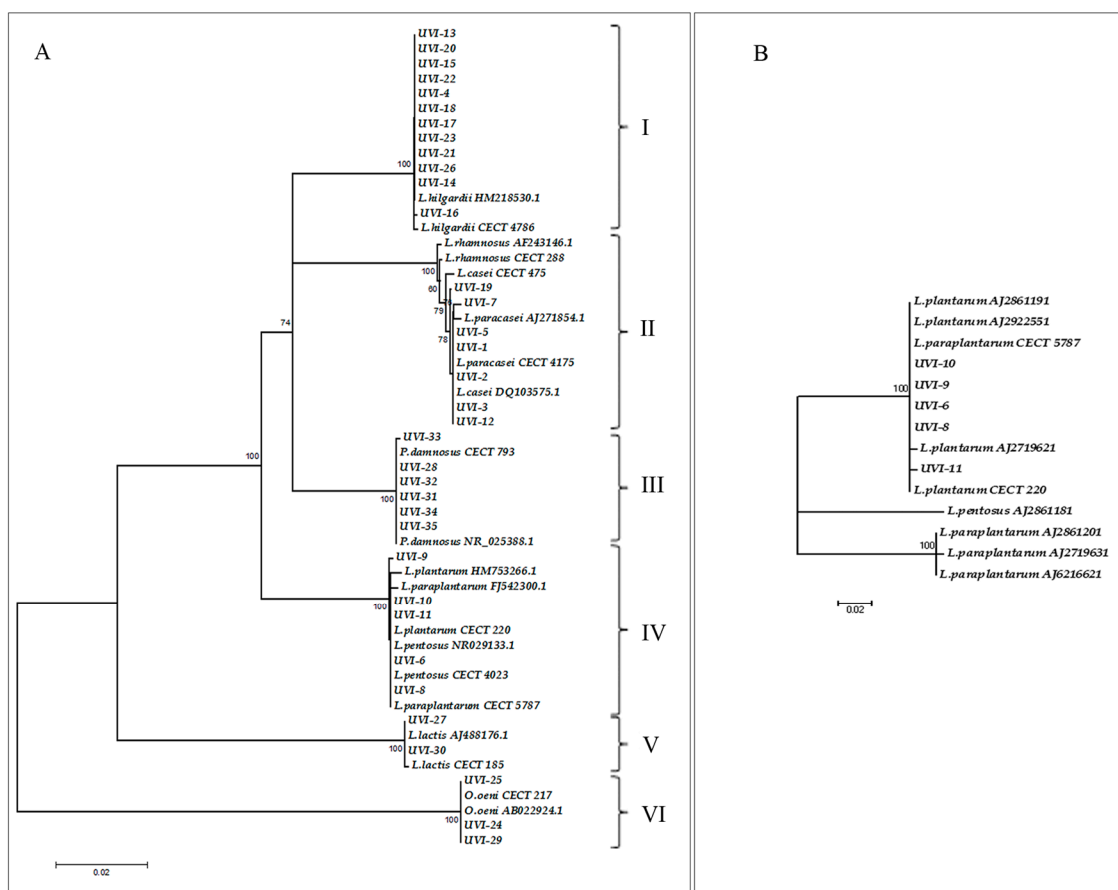


Figure S4: Maximum likelihood phylogenetic tree of 1.378 bp 16S rDNA (A) and 245 bp *RecA* (B) sequences. Samples, reference strains (CECT) and data base sequences are including. The tree was performed by ClustalW2 and MEGA 5 programs. A *bootstrap* of 1.500 replicates was carried out and values under 70% were omitted.

Table S1: Calibration data derived from seven-point calibration for histamine, tyramine and putrescine using HILIC-MS/MS method for the determination biogenic amines in wine.

| Compound | Lineal range* ($\mu\text{g/mL}$) | Slope (m) | Intercept (b) | C. Coefficient (R^2) | LOD ($\mu\text{g/mL}$) | LOQ ($\mu\text{g/mL}$) |
|------------|---------------------------------------|------------|------------------|-----------------------------|-----------------------------|-----------------------------|
| Histamine | 0.25-10 | 1265111.40 | 1724726.02 | 0.9839 | 0.010 | 0.034 |
| Tyramine | 0.25-10 | 808162.85 | 1172034.52 | 0.9953 | 0.003 | 0.010 |
| Putrescine | 0.25-10 | 62363.37 | 167677.48 | 0.9939 | 0.007 | 0.024 |

*According to the EU regulatory levels for biogenic amines (10 $\mu\text{g/mL}$ expressed as histamine) the UHPLC-MS/MS method proposed provides adequate LOD and LOQ to carry out the control of biogenic amines in wine samples.

Several wine samples were analyzed using optimal UHPLC-MS/MS conditions before described, three biogenic amines were detected in all samples. Unknown chromatographic peak 1 and 2 also were detected and they shows the same fragmentation patterns as tyramine and putrescine respectively, which mean the presence of some analogues of these two biogenic amines in wine samples used in this study.