

## **Supplementary information**

### **Industrial kinetic resolution of D,L-pantolactone by immobilized whole-cell biocatalyst**

Qiu-Hua Zhang,\* Liu Yang, Yi-Bin Tang, Liu-Nv Huang, Wen-Fang Luo

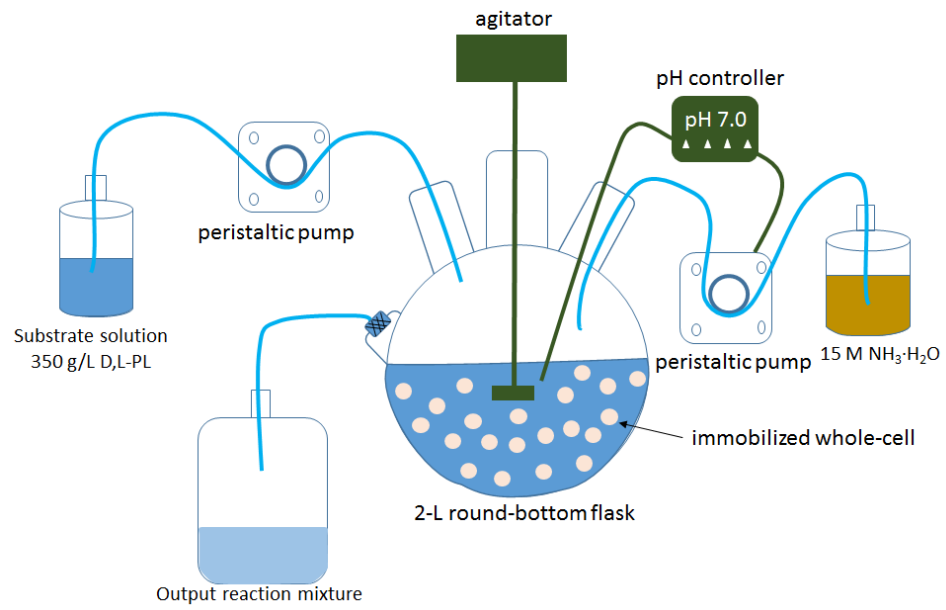
Brother research center, Jiangxi Brother Pharmaceutical Co.,LTD, Jiujiang, 332700, China.

\*E-mail: zqh@brother.com.cn

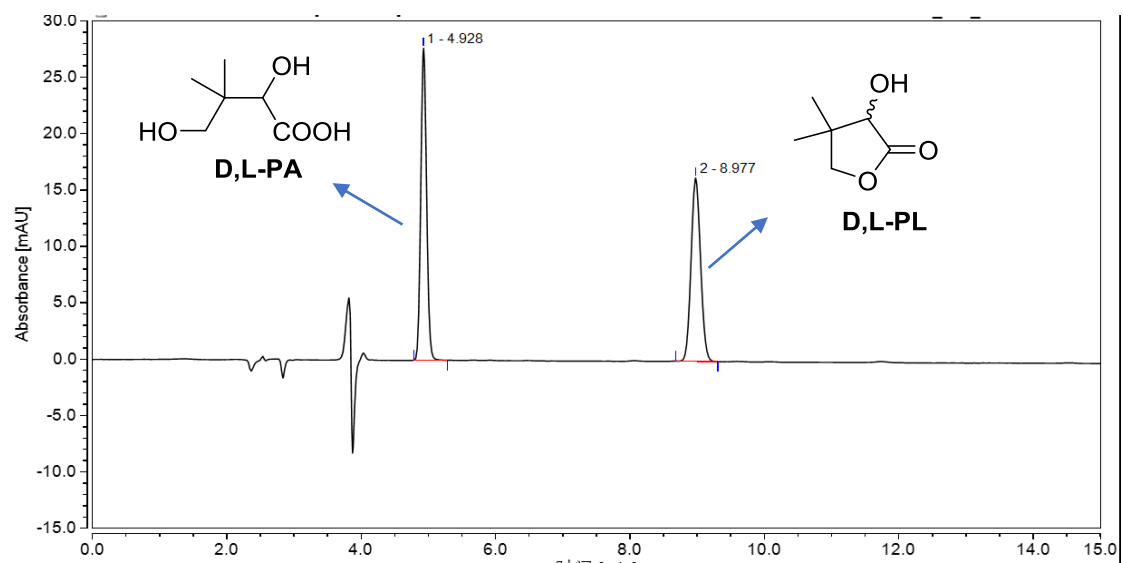
The shape of immobilized cell of *Pichia pastoris* ZMU-125



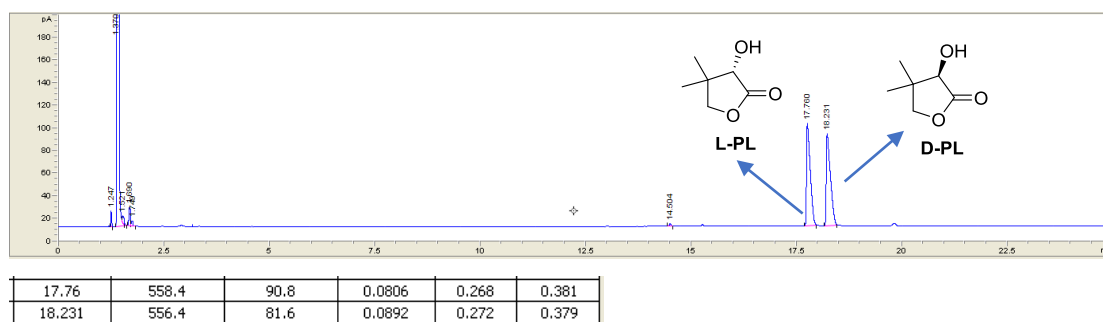
The schematic diagram for continuous hydrolysis of D,L-PL.



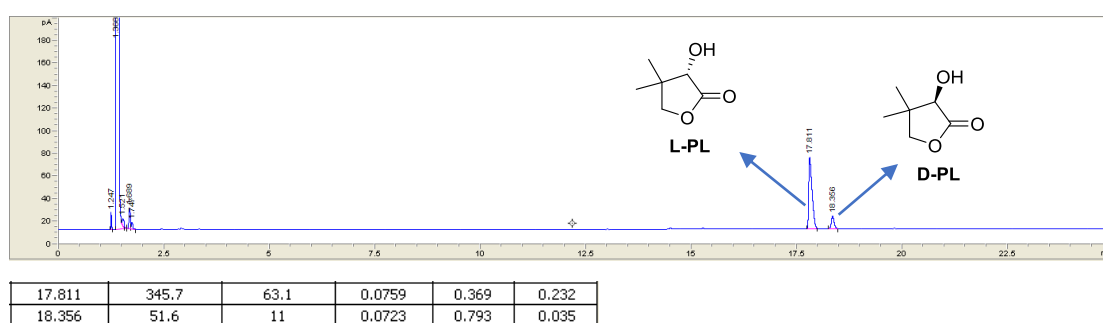
The HPLC chromatogram for D,L-PL and D,L-PA.



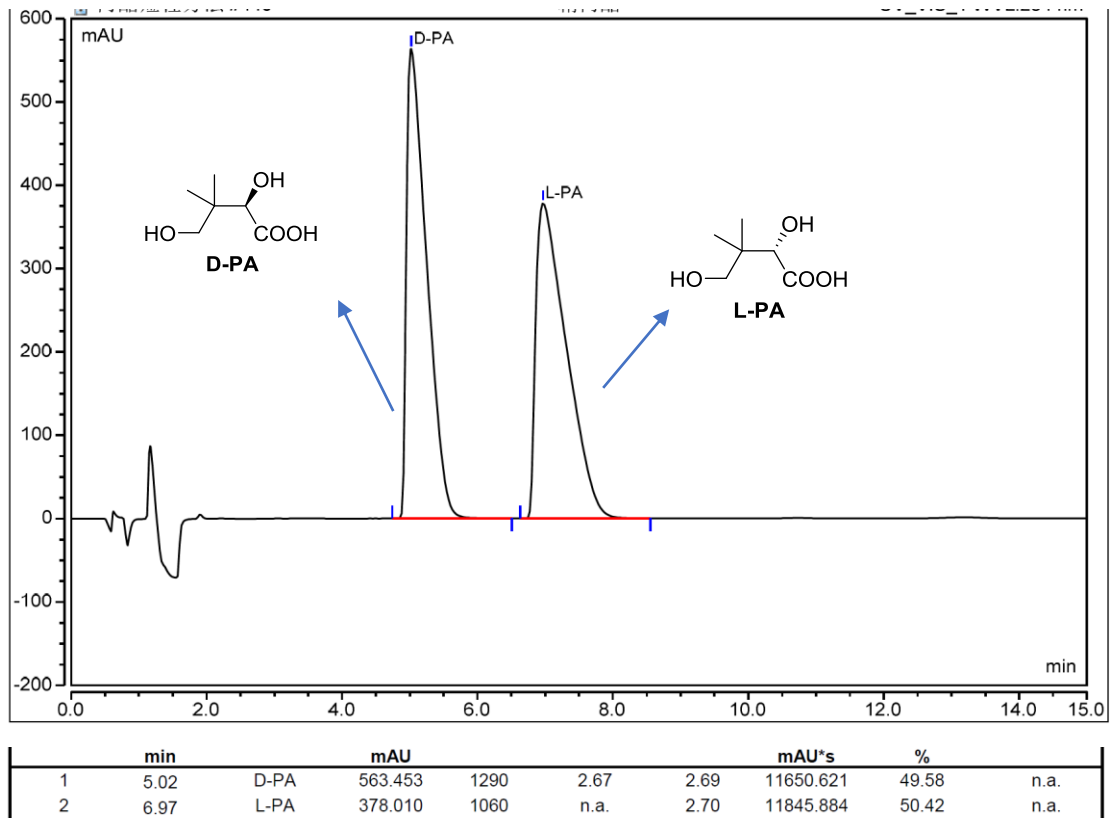
The chiral GC chromatogram for racemic D,L-PL.



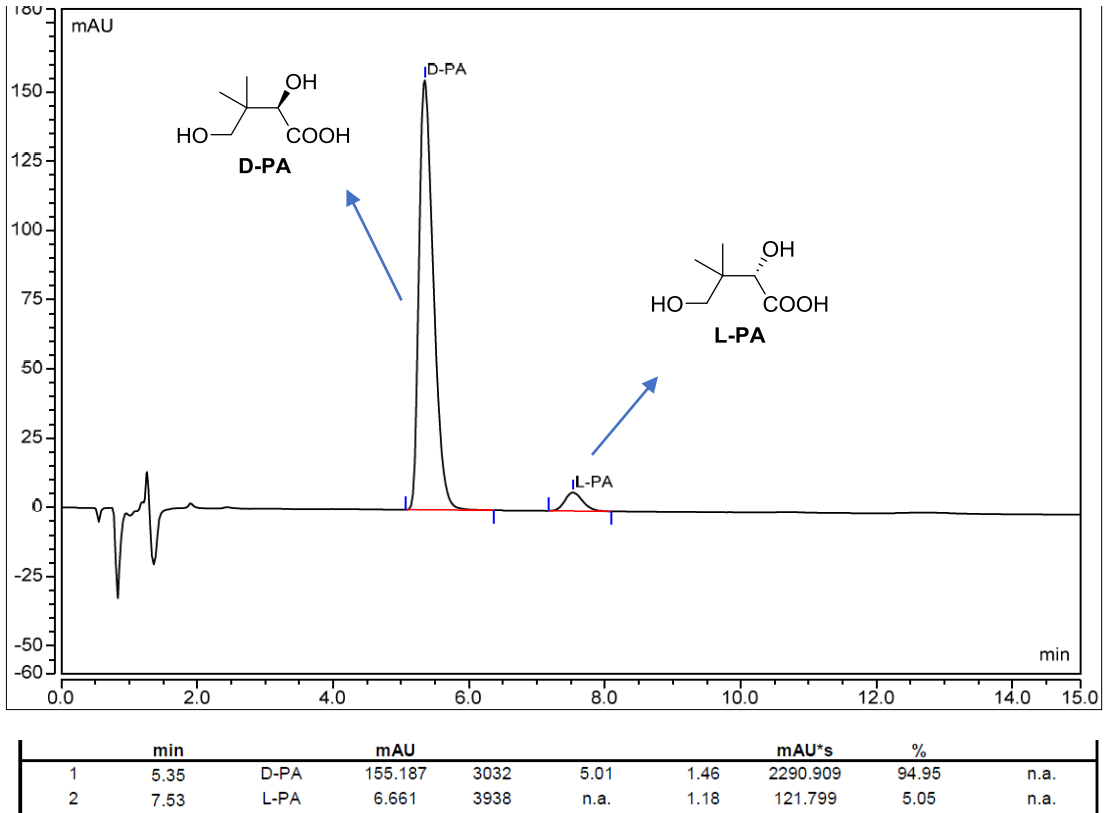
The chiral GC chromatogram for biocatalytic kinetic resolution of D,L-PL.



The chiral HPLC chromatogram for racemic D,L-PA.



The chiral HPLC chromatogram for enzymatic synthesized chiral D-PA.



NMR spectra of the purified D-PL.

