

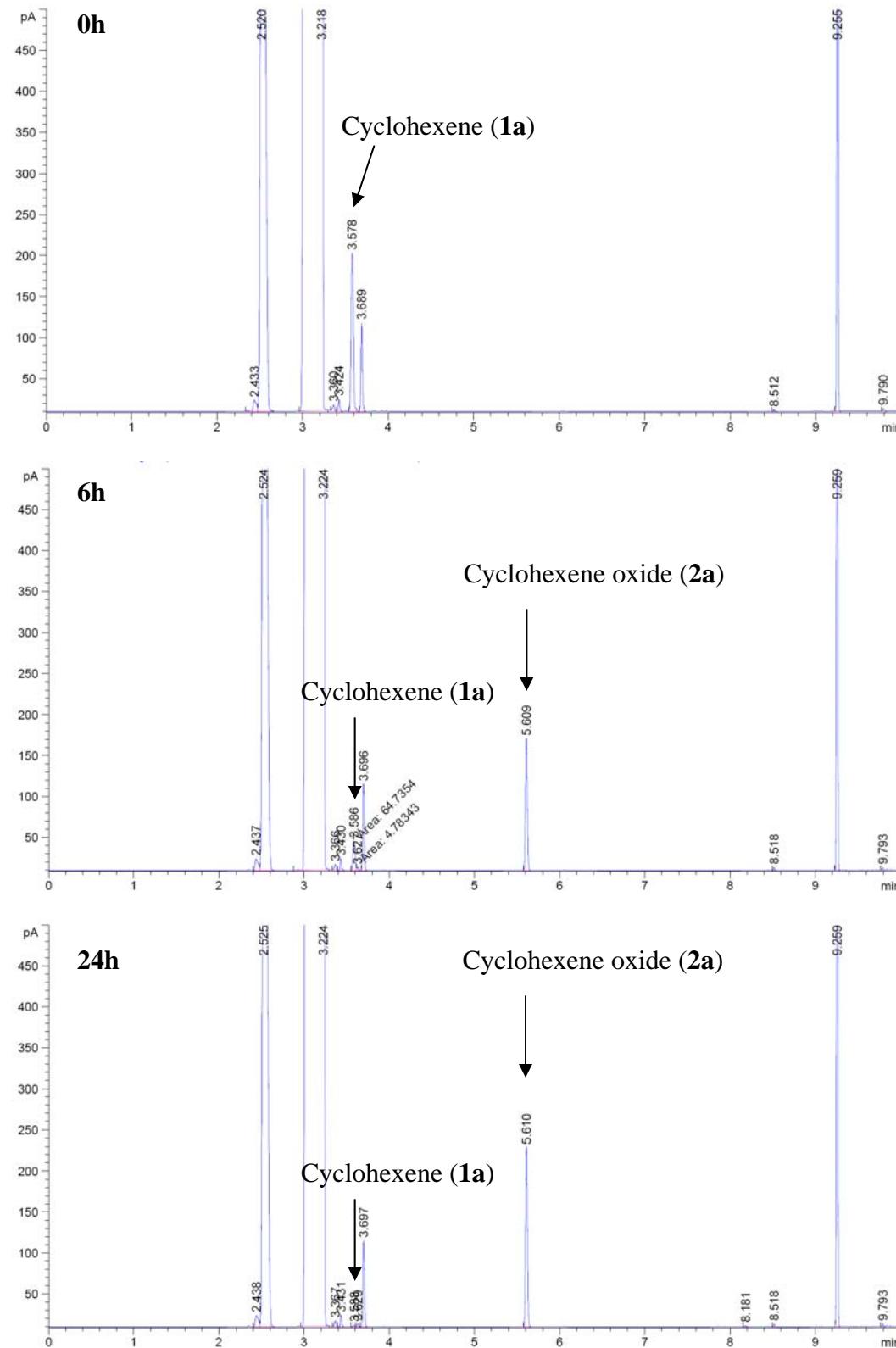
Supplementary Information

Asymmetric *trans*-dihydroxylation of cyclic olefins by
enzymatic or chemo-enzymatic sequential epoxidation and
hydrolysis in one pot

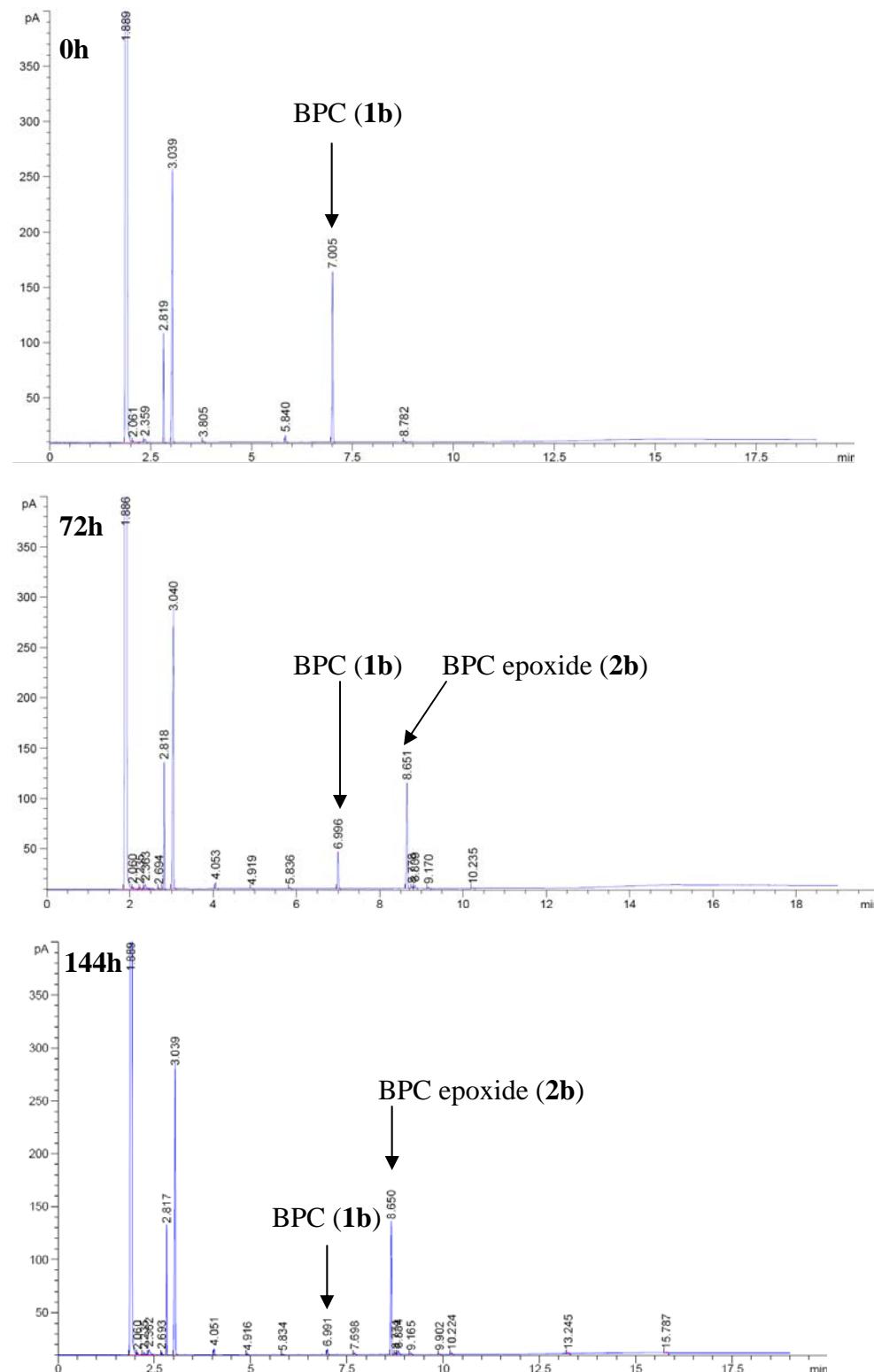
Yi Xu,^a Aitao Li,^a Xin Jia,^a and Zhi Li*^a

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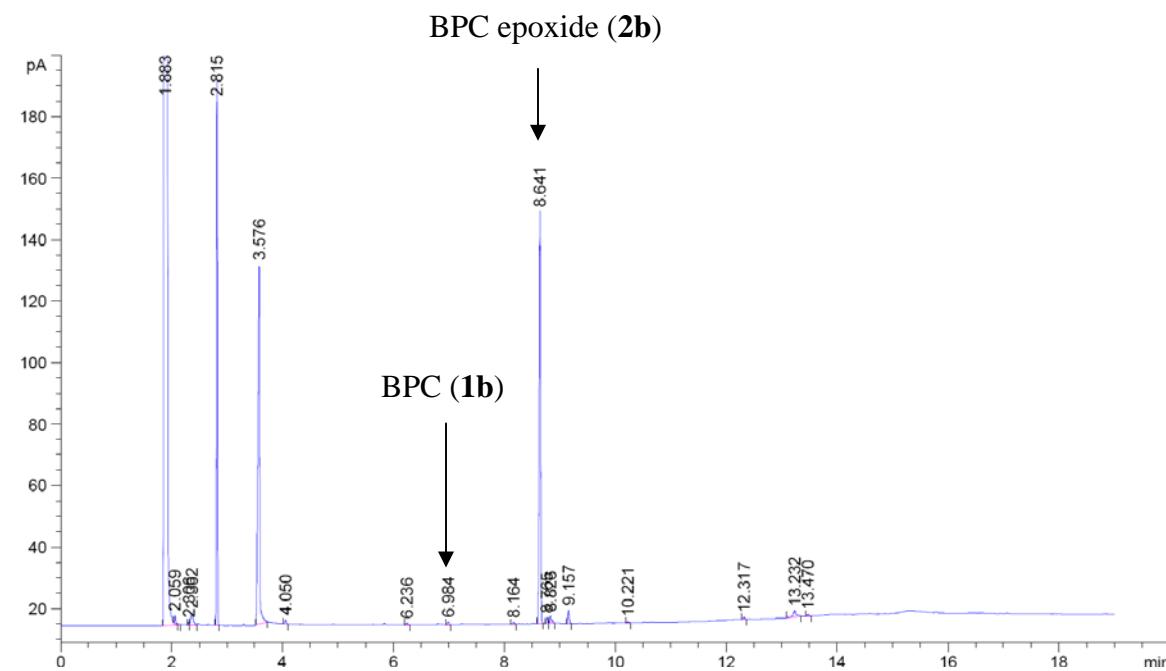
1) **Fig. S1.** GC chromatogram for lipase-mediated epoxidation of cyclohexene (**1a**) (**Table 1, Entry 5**).



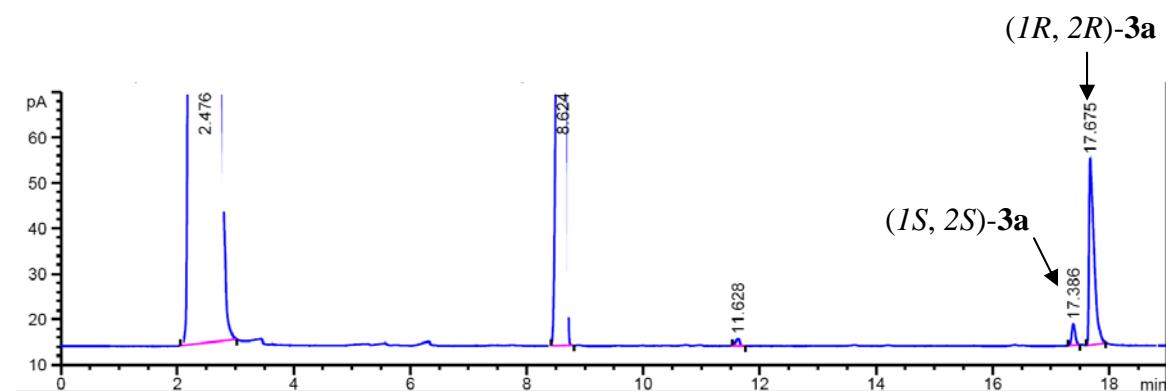
2) **Fig. S2.** GC chromatogram for Lipase-mediated epoxidation of N-benzyloxycarbonyl 3-pyrroline (**1b**) ([Table 1, Entry 16](#)).



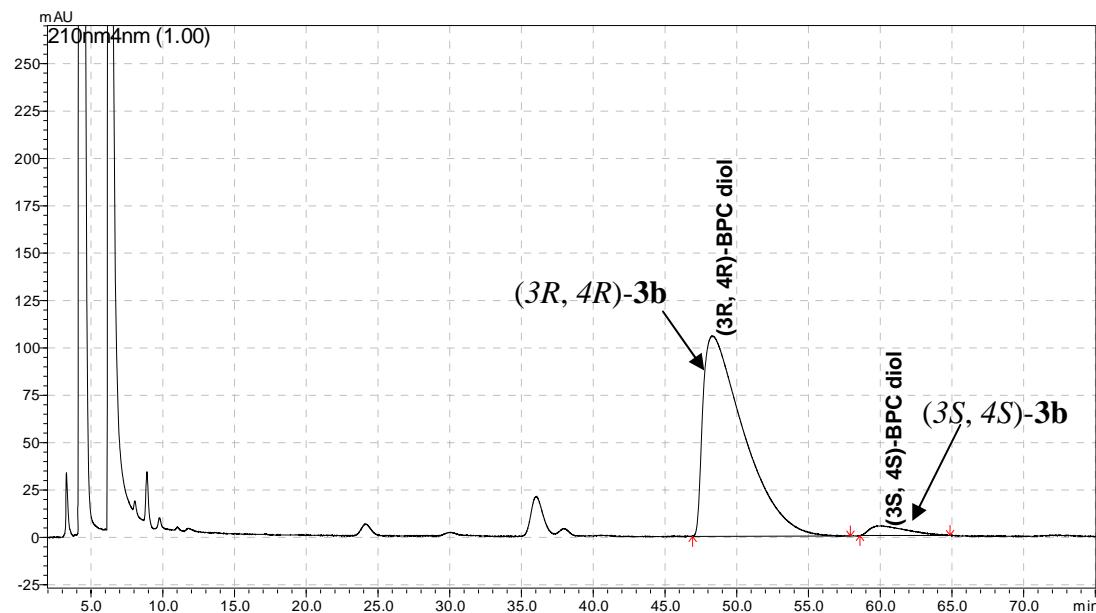
3) **Fig. S3.** GC chromatogram for epoxidation of *N*-benzyloxycarbonyl 3-pyrroline (**1b**) by m-CPBA in KP buffer (**Table 2, Entry 6**).



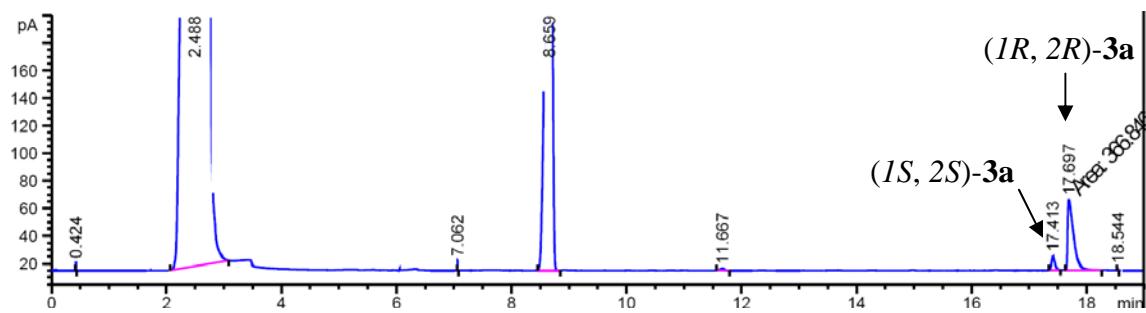
4) **Fig. S4.** Chiral GC chromatogram for enantioselective hydrolysis of cyclic meso-epoxides **2a** (**Table 3, entry 3**) with resting cells of *Sphingomonas* sp. HXN-200.



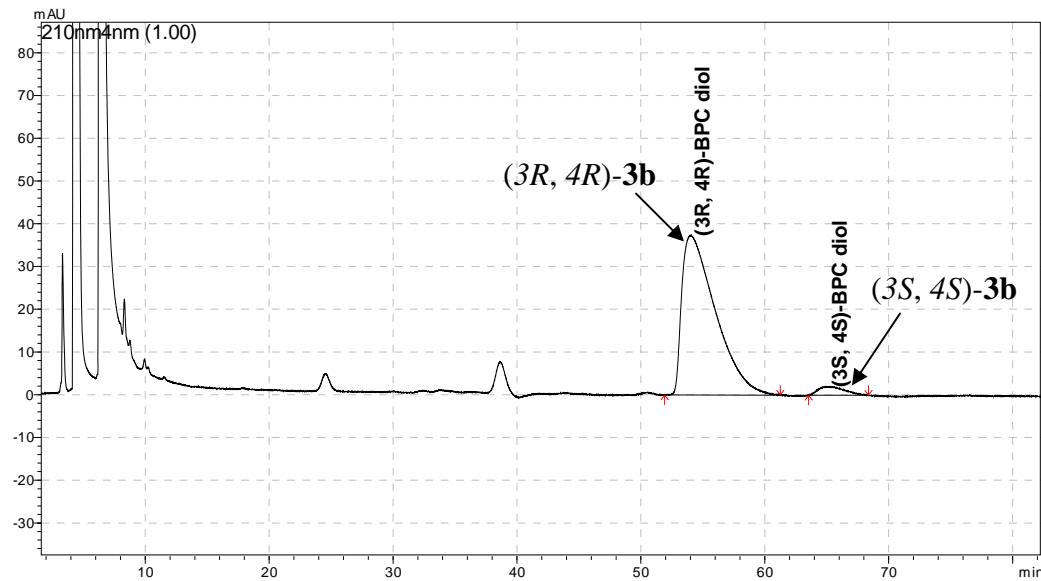
5) **Fig. S5.** Chiral HPLC chromatogram for enantioselective hydrolysis of cyclic meso-epoxides **2b** (**Table 3, entry 7**) with resting cells of *Sphingomonas* sp. HXN-200.



6) **Fig. S6.** Chiral GC chromatogram of **3a** for asymmetric *trans*-dihydroxylation of cyclohexene (**1a**) by one-pot enzymatic sequential epoxidation and hydrolysis (**Table 4, entry 1**).



7) **Fig. S7.** Chiral HPLC chromatogram of **3b** for asymmetric *trans*-dihydroxylation of *N*-benzyloxycarbonyl 3-pyrroline (**1b**) by one-pot enzymatic sequential epoxidation and hydrolysis (**Table 4, entry 2**).



8) **Fig. S8.** Chiral HPLC chromatogram of **3b** for asymmetric *trans*-dihydroxylation of *N*-benzyloxycarbonyl 3-pyrroline (**1b**) by one-pot chemo-enzymatic sequential epoxidation and hydrolysis (**Table 4, entry 6**).

