# Kinetic resolution of epoxides by biocatalyst

Seung Hwan Lee, Sang Yup Lee

Department of Chemical & Biomolecular Engineering, BioProcess Engineering Research Center, and BioInformatics Research Center, Korea Advanced Institute of Science and Technology, 373-1 Guseong-dong, Yuseong-gu, Daejeon 305-701, Korea.

Tel: 82-42-869-3930, Fax: 82-42-869-3910

## Abstract

Enantiomerically pure epoxides and vicinal diols are important building blocks for the production of a wide range of pharmaceuticals and fine chemicals. During past decade, many biological and chemical processes have been developed to produce these compounds. One of the approaches to obtain such chiral compounds isthe enantioselective hydrolysis of a racemic epoxide using epoxide hydrolase[1]. This enzyme is ubiquitous from mammalian to microorganism, and mammalian epoxide hydrolase have been widely studied because of their involvement in the metabolism of toxic xenobiotics. Recently, several epoxide hydrolase from microbial source have been discovered[2].

Here, we demonstrate development biocatalytic system for the chiral resolution using various forms of epoxide hydrolase as a biocatalyst. High enantiomeric excess of epoxide and diol can be obtained by kinetic resolution using epoxide hydrolase.

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## References

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