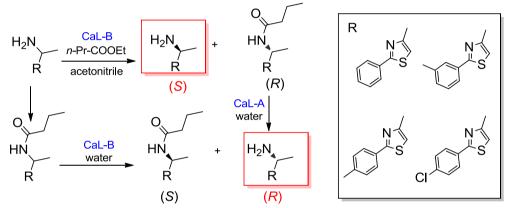
## *Candida antarctica* lipases acting as versatile catalysts for the synthesis of enantiopure (*R*)- and (*S*)-1-(2-phenylthiazol-4-yl)ethanamines

Alexandra Radu<sup>a</sup>, Mădălina Elena Moisă<sup>a</sup>, Monica Ioana Toșa<sup>a</sup>, Norbert Artur Dima<sup>a</sup>, Valentin Zaharia<sup>b</sup>, Florin Dan Irimie<sup>a</sup>

<sup>a</sup>Babeş-Bolyai University of Cluj-Napoca, Department of Biochemistry and Biochemical Engineering, Ro-400028 Cluj-Napoca, Arany János 11, Romania <sup>b</sup>Iuliu Haţieganu University of Medicine and Pharmacy, Department of Organic Chemistry, Ro-400012 Cluj-Napoca, Victor Babeş 41, Romania



## Keywords

phenylthiazole, chiral ethanamines, enzymatic kinetic resolution, lipases, amide hydrolysis

## Abstract

The synthesis of both enantiomers of four new phenylthiazole-based amines by enantiomer-selective acylation of racemic amines and by hydrolysis of the corresponding racemic amides using lipase B from *Candida antarctica* (Novozyme 435) as chiral catalyst was performed with good yields and excellent enantioselectivities. In order to prevent the frequently occurring partial racemization of enantiopure amides during chemical hydrolysis to the corresponding (R)-amines, the deprotection of the *N*-acylated (R)-enantiomers by mild enzymatic hydrolysis with lipase A from *Candida antarctica* immobilised on Celite was also developed.