STEREOSELECTIVE ENZYMATIC SYNTHESIS OF β-AMINO ACID DERIVATIVES

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β-Amino acids and their derivatives have always been of great interest and importance due to their unique pharmacological properties. Enantiomerically pure β-amino acids not only present broad biological activity but are also building blocks for the synthesis of β-peptides [1] β-lactam antibiotics [2] and many pharmacologically relevant natural products [3,4]. For example, Taxol, Kedarcidin (both antitumor agents), Jasplakinolide (with anthelmintic, insecticidal, antifungal activities) and Elarobifan (an integrin antagonist) represent some of the most popular pharmaceutically interesting compounds containing units of β-amino acids [5].

For these reasons, the development of new strategies for the synthesis of optically pure β-amino acids and their derivatives has received considerable attention as there is a high demand in both academia and industry.

The aim of this study is to synthesize a series of enantiomerically enriched heteroaromatic β-amino acid derivatives through enzymatic kinetic resolution using lipases as chiral catalysts.

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