Synthesis of 1-Azafagomine Analog and 1-*N*-Phenyl Carboxamide 1-Azafagomine Containing Erythrose Units

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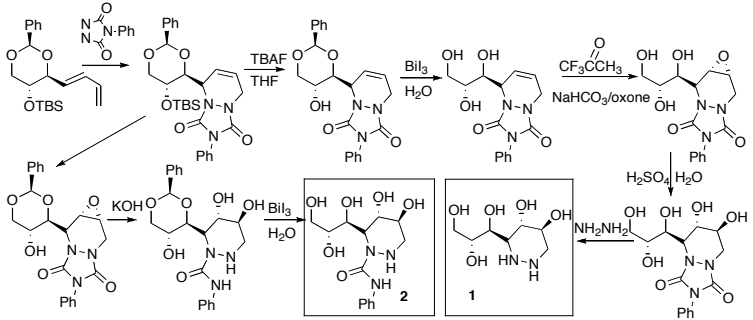
The synthesis of iminosugars is an important topic in modern Organic Chemistry for their structures proved to be of great biological interest including as therapeutics. Iminosugars interfere with glycosidases, the natural carbohydrate processing enzymes, and with carbohydrate recognizing receptors spread in all living organisms. Some iminosugurs are part of the therapeutic arsenal against cancer, Gaucher, antiviral, and anti cancer diseases[1] The aim of this work was the synthesis of compound **1**, an analogue of 1-azafagomine, and **2** a derivative of 1-*N*-phenyl carboxamide 1-azafagomine, recently showing a better inhibition power against α-glycosidase than 1-azafagomine itself.[2] These compounds were selected by molecular modelling studies and will be tested against a series of α- and β-glycosidases. (Scheme 1)



Scheme 1

***Acknowledgements**:* We thanks to FCT (Project PTDC/QUI/67407/2006) QREN, COMPETE and POPH for financial support and to the Portuguese NMR Network *RNRMN* (Bruker Avance II 400).

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