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Synthesis, molecular docking and ADMET prediction of novel swertiamarin analogues for the restoration of type-2 diabetes: an enzyme inhibition assay

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Abstract

Swertiamarin is a lead, biologically active compound obtained from *Enicostemma littorale Blume* and known to be identified for the anti-diabetic activity. Present work comprises the synthesis and structural optimization of seven novel swertiamarin analogues and those were not being reported elsewhere till date. Swertiamarin was isolated, followed by modifications that have been accomplished amidst fluorinating, acetylating and oxidizing agents and also performed chromatographic purity and characterization of analogues. Furthermore, the swertiamarin analogues were screened for dipeptidyl peptidase IV (DPP-IV) enzyme inhibition with *in silico* studies.