Synthesis and biological evaluation of isomeric iheyamine A derivatives

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Abstract: Iheyamine A is a member of bisindole alkaloids isolated from an ascidian, \textit{Polycitorella} sp. The structure of iheyamine A is comprised of two indole rings fused to azepine ring and this skeleton showed cytotoxicity against P338, A549 and HT29 cell lines with IC\textsubscript{50} at the level of 1 μg/mL. The isomeric iheyamine A has been synthesized and the structure was confirmed by single-crystal x-ray structure. However, its biological activities has not been evaluated. Herein, we described the synthesis of isomeric iheyamine A derivatives and the biological activities of synthesized compounds were also evaluated against L929, HeLa and HepG2 cell lines by MTT assay.

\textbf{Keywords:} Isomeric iheyamine A; Azepine ring; Biological activities; Cytotoxicity