



Synthesis and characterization of new Isoniazid Prodrug as anticancer agent

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Abstract: Isoniazid is considered to be first choice of drug against Tuberculosis disease caused by Mycobacterium Tuberculosis. But derivatives of isoniazid which were designed by modifications in parent molecule have shown increased anti-mycobacterium activity. Along with this activity, these derivatives were shown to have a range of pharmaceutical applications like having anticancer activity, antimicrobial activity etc. In the present work, one such isoniazid derivative has been synthesized called as (3-(dodec-1-enyl)pyrrolidin-1-yl)isonicotinamide. This synthesized compound was evaluated for potential anticancer activity, antibacterial activity and DNA cleavage ability. It was observed that as compared to the standards, this is an efficient anticancer agent and was active against gram negative strain. This compound also has potent DNA cleaving ability.

Keywords: Isoniazid derivatives, (3-(dodec-1-enyl)pyrrolidin-1-yl)isonicotinamide, Mycobacterium Tuberculosis, Anti bacterial activity, Anti Cancer activity, DNA Cleavage Studies.

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