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# *In vitro* and *in silico* exploration of newly synthesized triazolyl-isonicotinohydrazides as potent antitubercular agents

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## Abstract

In the present study, we have reported the synthesis of novel isoniazid-triazole derivatives (**4a-r**), *via* the click chemistry approach. The synthesized isoniazid-triazole derivatives have potent *in vitro* antitubercular activity against the *Mycobacterium tuberculosis* (MTB) H37Rv strain. Among these compounds, **4b**, **4f**, **4g**, **4j**, **4k**, **4m**, **4o**, **4p**, and **4r** were found to be the most active ones with a MIC value of 0.78 µg/mL. This activity is better than ciprofloxacin (MIC value = 1.56 µg/mL) and ethambutol (MIC = 3.12 µg/mL). The compounds, **4a**, **4c**, **4d**, **4e**, **4h**, **4i**, **4l**, and **4n** have displayed