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Synthesis and *in vitro* antimycobacterial evaluation of some new 2-(2-aryl thiazolidin-4-yl)benzo[d]oxazoles

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ABSTRACT This study reports the synthesis and *in vitro* antimycobacterial evaluation of some new 2-(2-aryl thiazolidin-4-yl)benzo[d]oxazoles **(2a-g).** The synthesis of **2a-g** was accomplished by the treatment of 2-arythiazolidine-4-carboxylic acids **(1a-g)** with *o*-aminophenol. The biological evaluation of the synthesized compounds was tested against *Mycobacterium tuberculosis (M.tb).* The well-known anti-TB drugs are pyrazinamide, ciprofloxacin, and streptomycin. Compounds **2a**, **2d**, and **2e** exhibited a minimum inhibitory concentration (MIC) value of 50 µg/mL, compounds **2b**, **2c,** and **2g** MIC value of 25 µg/mL, and compound **2f** MIC value of 12.5 µg/mL against the *M.tb H37Rv*. The results demonstrated the greater potency of compounds with electron-withdrawing groups compared to those with electron-releasing groups.

KEYWORDS Thiazolidine, *Mycobacterium tuberculosis*, benzo[d]oxazole, synthesis, tuberculosis.

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