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Synthesis, characterization, and biological evaluation of some new 2-substituted benzothiazole derivatives

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ABSTRACT Ten new 2-substituted benzothiazole derivatives were synthesized by condensing 2-aminothiophenol with different substituted benzaldehydes. Antimicrobial evaluations showed that compounds have activity against Gram-positive and Gram-negative bacteria and fungal pathogens. Derivatives **3a, 3b, 3e, 3f,** and **3i** showed potent activity against *Staphylococcus aureus*, with a minimum inhibitory concentration of 31.25 µg/mL. These compounds also exhibited substantial zone of inhibition against other Gram-positive bacterial strains.

KEY WORDS Benzothiazole derivatives, Aromatic aldehydes, Biological activity, Antimicrobial activity, Antibacterial, Physicochemical.

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