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Synthesis And Biological Evaluation Of Some New Pyrazole, Chromen Incorporated Indole Derivatives

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ABSTRACT

Some novel indole analogues containing pyrazole and chromen systems have been synthesized and their strucure are confirmed by spectral studies. These compounds were screened for their in-vitro antioxidant, antimicrobial, anti-tuberculosis and anti-cancer activities. Compound **4e** exhibited promising radical scavenging activity (RSA) (84.50%) at 50 µg/mL, **3e** exhibited good reducing power ability (FRAP) at 100 µg/mL, **3b** showed good metal chelating activity (78.89%) at concentration 100 µg/mL. Compounds **3b** and **4b** exhibited excellent MIC value of antimicrobial activity. Compounds **4b**, **4c**, **4d**, **4e** and **4f** showed promising anti-tubercular activity against M. Tuberculosis $H_{37}Rv$, whereas compounds **3d** and **3e** exhibited 100% cell lysis at concentration 10 µg/mL against MDA-MB-231 (Human adenocarcinoma mammary gland) cell lines.

Keywords: Indole, pyrazole, antioxidant, antimicrobial, anti-TB and anti-cancer activity.

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