



Synthesis and Biological Evaluation of Theophylline Methyl 1,3,4- Oxadiazole as Anticancer Agents

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Abstract—A series of theophylline methyl 1,3,4-oxadiazole small molecules were obtained via cyclization of theophylline-7-acetohydrazide with different benzoic acids. The compounds (**IV a-j**) were synthesized and characterized by using conventional methods. The new compounds obtained were evaluated for their cytotoxic effect in three different cancer lines, the activity obtained varies depending upon the structure of a molecule. The compound (**IVb**) and (**IVf**) showed promising effect than other compounds of the series. Thus, these two derivatives have the potential for developing as anticancer agents.

Keywords: theophylline, cytotoxicity, oxadiazole, cancer

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