



In Vivo Anticancer Evaluation of Novel Arylidene 4-Piperidones Analogues

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SUMMARY. Recently, different series of compounds have been designed which utilized the 1, 5-diaryl -3-oxo-1,4-pentadinenyl pharmacophore for development of novel cytotoxic and anticancer agent. Various 3, 5-bis (arylidene) 2,6-diphenyl piperidin-4-one displayed cytotoxic property against leukemic cell lines. In the present study *in vivo* anticancer activity were determined against Ehrlich ascites carcinoma (EAC) in Swiss albino mice. The compound **3** showed significant anticancer activity against Ehrlich ascites carcinoma. This *in vivo* study reflects decreasing the nutritional fluid volume and arresting the tumor growth, increases the life span of EAC-bearing mice and brought back the hemoglobin content, red blood cells (RBC) and white blood cells (WBC) count more or less to normal levels. Thus this study revealed the potential of these molecules for further development as anticancer agents.

KEY WORDS: α,β -unsaturated ketones, alkylating agents, anticancer agents cytotoxic agents and 4-piperidones.

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