Design, synthesis and cytotoxic activity of some novel compounds containing pyrazolo[3,4-d]pyrimidines nucleus

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Abstract

Novel pyrazolo[3,4-d]pyrimidines were designed and synthesized as antitumour agents aganist human breast cancer adenoma (MCF-7). Molecular modelling and pharmcological screening were performed aganist breast cancer cell line and also certain synthetic pathways were developrd in order to introduce functionality onto C6 and C5 positions of pyrimidine moiety. Surprisingly, all the test compounds showed IC50 lower than that of the standard olomoucine I, especially compounds 4b, 8a, 10b, 11a and b, which showed IC50 between 0.009 and 0.004 uM

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