

Substituted thiazoles VI. Synthesis and antitumor activity of new 2-acetamido- and 2 or 3-propanamido-thiazole analogs

Hussein Ibrahim Ismail El Subbagh ,Shahenda M. El-Messery, Ghada S. Hassan, Fatmah A.M. Al-Omary, Hussein I. El-Subbagh

Professor

Abstract

A novel series of 2-acetamido and 2 or 3-propanamido derivatives of 4- or 5-substituted-thiazoles was designed and synthesized. Structure elucidation of the new synthesized compounds was attained by the use of ^1H & ^{13}C NMR, and Mass spectrometry. Compounds were subjected to NCI *in vitro* assessment for their antitumor activity, at a single dose of 10 mM of test compounds. Compounds bearing straight chain substituent or 4-phenyl function proved to be more active than their branched or 4-methyl congeners. Compounds 37, 41 and 42 exhibited broad spectrum antitumor activity. Compounds 23 and 27 proved lethal while compounds 18, 21, 32 and 37 showed remarkable GI values of 75.5, 69.3, 96.2 and 92.7% to the Leukemia CCRF-CEM cell line, respectively.

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