PI3K Inhibitors of Novel Hydrazide Analogues Linked 2-Pyridinyl Quinazolone Scaffold as Anticancer Agents

Ibrahim F. Zeid,[1]Neama A. Mohamed,[2]Nagy M. Khalifa,[2,3] Emad M. Kassem,[2]Eman. S. Nossier,[4]Ahmed A.Salman,[1]Khaled Mahmoud,[5]and Mohamed A. Al-Omar[3]

[1]Department of Chemistry, Faculty of Science, Menoufiya University, Menoufiya, Egypt:ifzeid36@gmail.com, chem_ahmed2020@yahoo.com

[2]Department of Therapeutical Chemistry, National Research Centre, Dokki, Cairo, 12622 Egypt:neamanrc@yahoo.com, emadkassem@hotmail.com

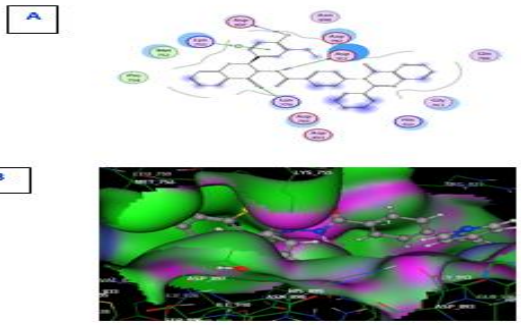
[3]Drug Exploration & Development Chair (DEDC), Pharmaceutical Chemistry Department, College of Pharmacy,King Saud University, Riyadh 11451, Saudi Arabia.

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I. Abstract

A series of novel 2-(pyridin-4-yl)quinazolin-4(3*H*)-ones bearing different heterocyclecores as potential PI3K inhibitors have been synthesized and evaluated via MTT assay for their antiproliferative properties against selected HePG-2, MCF-7 and HCT116 cancer cell lines. Among them, compound**8**displayed significant activity against HePG-2 (IC_{50} = 60.29±1.06 μM) comparable to doxorubicin as a reference anti-cancer drug (IC_{50} = 69.60±1.50 μM). Kinase inhibitory assessment of target products against PI3K and docking studies revealed the promising binding affinities which match with the binding mode of the ligand, SW13 towards the active site of PI3K. Therefore, this work represents a promising matrix for developing novel potential anticancer candidates.

II. Image:



III. Reference:

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IV. Biography

Ahmed Salman has completed his PhD at The age of 30 years from Menofya University He is a researcher in National Resaerch center , Dokii, Cairo , Egypt.

V. Presenting author details



Full name: Ahmed AbdelAziz Abdalla Salman

Contact number: +201009497362
Category: poster presentation
passport number: A15177153