

Anticancer Activity of Novel Amide Methoxyphenyl Derivatives

Students:

Osama Hamoudi

Eman Nawasra

Abdullah abdelrazaq

Supervisor

Dr. Mohammad Hawwash

Abstract

Worldwide, cancer is being the most killer disease, (1,1-2) 25% of the deaths in the 3rd world country are due to cancer. It has killed 9.6 million humans in 2018, out of 5 men, one is developing cancer during his life and for women the ratio is 1 out of 6. Many environmental factor as diet, obesity, alcohol consumption, physical inactivity, radiation, sunlight, viral infection and other genetic factors scratch together leading to this fateful disease. Over the years scientists invented a lot of treatments for cancer, each type of cancer is tried to be cured by its own therapy as chemotherapy, hormonal, radiation and surgery. Four compounds were synthesized as isoxazole-carboxamide. Characterized by HRMS, CNMR and HNMR. Compounds OAE4 showed potent anticancer against Hep3B cancer cell line. By further investigating their molecular effectors, it was revealed that compound OAE4 caused cell cycle arrest at the G2/M phase and it was close to Doxorubicin value as reference. In future studies, we can synthesize more analogues of carboxamide-Isoxazole derivatives as promising anticancer agents and further in-vivo investigations required to approve these effects and to design suitable pharmaceutical dosage forms from these compounds.