The in vitro study of nitrogen containing cannabinolic acid derivatives toward various human cancer cell lines

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An in vitro anticancer activity study of some tetrahydrocannabinolic (THCA) and cannabidiolic (CBDA) acid amides and hydrazides toward various human cancer cell lines (pancreas, colon, liver, esophagus) was performed by CellTiter Glo Viability and XTT assays (48 and 72 h). IC50 values were in the range of 1.3-20 μM depending on the substituents on the amide and hydrazide moieties. THCA derivatives showed greater activity compared to that of CBDA. An in vivo study of two THCA derivatives ALAM027 and ALAM108 in nude mice (oral administration) showed their ability to slow down tumor growth by 1.5–2 times without any discomfort and weight loss of the animals.