Sinergisme fraksi butanol metabolit sekunder Kapang Endofit 1.3.11. dengan Doxorubicin dalam modulasi daur sel T47D dan MCF-7

Abstrak

The synergic effects of n-butanolic fraction of secondary metabolite of endophytic fungus 1.3.11 (FB) and doxorubicin (Dox) on cell cycle regulation and the expression of Bell - 2 gene expression were inventigated on MCF - 7 and T47-D cells by flow cytometry and immunocytochemical techniques respictively . The result showed that after 12 hours of incubation period with FB at its IC 50 dose, MCF-7 cell cycle was inhibited at G 1 phase while Dox inhibited the cell cycle at G2/M phase. Similar results were observed in T47 - D cells when incubated with DOX and FB individually under the same treatment condition. Further treatment was then performed to these cells where both DOX and FB were combined at their IC50 and 1/2 IC 50 dose and added to incubate with the cells over 12 hours period. Interestingly. the modified treatment combination showed that MCF - 7 D cell cycle regulation were inhibeted at G2/M phase. Our immunocytochemicalstudy also showed no significant inhibition suppresion of Bcl - gene expression in both MCF - 7 and T47 - D cells when compared with their corresponding positive control after treatment with FB and Dox or both combined FB and Dox at IC 30 and 1/2 IC 50 dosage over 15 hours incubation.