Uji sitotoksisitas ekstrak etanol kulit buah manggis (garcinia mangostana l) terhadap sel mieloma secara in vitro = In vitro cytotoxicity test of of mangosteen pericarp garcinia mangostana linn ethanol extract against myeloma cells

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Abstrak

[Angka kejadian penyakit mieloma multipel kecil, yaitu 0,8% di dunia dan 0,6% di Asia Tenggara dari seluruh kasus kanker yang ada. Namun, penyakit ini terjadi secara asimtomatik sehingga sulit didiagnosis, belum dapat disembuhkan, dan mudah mempengaruhi organ dalam tubuh. Kulit buah manggis yang jarang dimanfaatkan diketahui mengandung senyawa xanton (polifenolat) yang memiliki aktivitas antikanker. Penelitian in vitro menggunakan sel jalur p3x63ag8 untuk menemukan ada tidaknya efek sitotoksisitas ekstrak etanol kulit buah manggis serta IC50. Sel dibagi menjadi 9 kelompok, yaitu 1 kelompok kontrol dan 8 kelompok perlakuan dengan konsentrasi 6,25 μg/ml, 12,5 μg/ml, 25 μg/ml, 50 μg/ml, 100 μg/ml, 200 μg/ml, 400 μg/ml, dan 800 μg/ml. Data diambil dengan metode MTT assay dan hasilnya berupa nilai optical density. Setelah inkubasi 48 jam menggunakan ekstrak etanol kulit buah manggis, hasil persamaan garis diketahui IC50 nya adalah 5,41 μg/ml. Analisis statistik dengan Kruskal Wallis menghasilkan adanya perbedaan efek sitotoksik pada konsentrasi yang berbeda . Uji Post Hoc didapatkan perbedaan bermakna antara kelompok kontrol dan kelompok perlakuan 6,25 μg/ml dengan kelompok perlakuan lain.;Multiple myeloma disease has small incidence, namely 0,8% in the world and 0,6%
in Southeast Asia of all cancer cases. However, the diasease occurs in asymptomatic that so difficult to be diagnosed, can not be cured, and affects many organs. The mangosteen pericarp which rarely used evidently contain xanthone (polifenolat) compound which have anticancer activity. Research in in vitro manner using cell lines p3x63ag8 to discover the presence of cytotoxicity effect of mangosteen pericarp ethanol extract and the IC50. Cells was divided into 9 groups, 1 control group and 8 treatment groups (consentrations: 6,25 μg/ml, 12,5 μg/ml, 25 μg/ml, 50 μg/ml, 100 μg/ml, 200 μg/ml, 400 μg/ml, and 800 μg/ml). Data taken by MTT
assay method and the result is optical density value. After 48-hours incubation period and the result in line equation, found that IC50 was 5.41 ug / ml. Statistical analysis with Kruskal Wallis declared differences in the cytotoxic effects of different concentrations.Post Hoc test found significant difference beetwen the control group and the treatment group of 6.25 ug / ml just than other groups;Multiple myeloma disease has small incidence, namely 0,8% in the world and 0,6%
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