PENERBIT:
DEPARTEMEN FARMAKOGNOSI DAN FITOKIMIA
FAKULTAS FARMASI UNIVERSITAS AIRLANGGA
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Antiangiogenesis from Pericarp of Mangosteen on T47D Breast Cancer

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Abstract

Mangosteen (Garcinia mangostana Linn.) are generally cultivated in tropical rain forest area in Southeast Asia, especially in Indonesia. Mangosteen are well known to be rich in xanthone compounds and have anticancer activity. This study was aimed to know the mechanisms of action as an anticancer agent, such as an angiogenesis inhibitor on the T47D breast cancer cell line by suppressing angiogenic factor (VEGF) in vitro from the ethanol extract and actives fractions of mangosteen pericarp. The materials test of this study were the ethanol extract of mangosteen pericarp and fractions 2, 2.2 and 2.2.4 that generated from separations on previous study. In this study, we determine the antiangiogenic potency on T47D breast cancer through determination of expression percentage of VEGF as angiogenic factor by imunocytochemistry assay method. The result showed that the ethanol extract and the active fractions possesed antiangiogenic potency and the fraction of 2.2.4 was the most potent with the lowest percentage of VEGF expression (24.67% ± 4.51). It can be concluded that chemical components that contained in the extract and the fractions of mangosteen pericarp gived angiogenesis inhibition on T47D breast cancer cell. Based on this result, the ethanol extract and the active fractions of mangosteen pericarp were potential to be delevoped as antiangiogenic agent in breast cancer metastase.

Keyword : Garcinia, mangostana, angiogenesis, VEGF, T47D, Breast, Cancer,

Daftar Pustaka :