ABSTRAK

Ekstrak etanol temu putih (*Curcuma zedoaria*) diketahui memiliki aktivitas sitotoksik terhadap *liver cancer HepG2* dan *human ovarian cancer cell line* serta mampu menghambat proliferasi sel HeLa dengan IC_{50} sebesar 29,19 µg/ml. Namun, sejauh ini masih belum banyak ditemukan penelitian terkait pengaruh pemberian ekstrak terhadap proliferasi sel kanker payudara MCF-7. Tujuan penelitian mengetahui pengaruh pemberian ekstrak temu putih (*Curcuma zedoaria*) pada sel MCF-7 kanker payudara.

Penelitian eksperimental dengan rancangan *post test only control group design*. Subyek penelitian adalah *cell-line* MCF-7 kanker payudara yang dibagi menjadi 7 kelompok perlakuan ekstrak etanol temu putih dengan dosis yang berbeda dan 3 kelompok kontrol sel, medium, dan pelarut, kemudian diinkubasi selama 72 jam. Proliferasi sel MCF-7 kanker payudara berikutnya dianalisis dengan uji one way anova dan post hoc LSD, serta uji probit.

Hasil yang diperoleh yaitu ekstrak etanol temu putih fraksi etanol berpengaruh terhadap proliferasi *cell-line* MCF-7 dibuktikan dengan terjadinya penurunan rerata prosentase sel hidup seiring dengan peningkatan dosis. Hasil IC_{50} yang diproleh yaitu pada dosis 57,37 µg/ml.

Pemberian ekstrak etanol temu putih (*Curcuma zedoaria*) berpengaruh terhadap proliferasi sel MCF-7 kanker payudara.

Kata Kunci: *sel MCF-7 kanker payudara, temu putih (Curcuma zedoaria).*

ABSTRACT

Ethanol extract of white ginger (*Curcuma zedoaria*) are known to have cytotoxic activity against HepG2 liver cancer and human ovarian cancer cell line and were able to inhibit the proliferation of HeLa cells with IC_{50} of 29.19 ug / ml. However, so far still not commonly found associated research the effect of the extract on proliferation of breast cancer cells MCF-7. This study aimed to know the the effect of white ginger extract (*Curcuma zedoaria*) on MCF-7 breast cancer proliferation.

Experimental research with post test only control group design. Subjects were MCF-7 cell line breast cancer were divided into 7 groups of white meeting ethanol extract treatment with different doses and three control groups of cells, medium, and solvent, then incubated for 72 hours. Proliferation of MCF-7 breast cancer next analyzed with one way ANOVA and post hoc LSD, as well as the probit test.

The results obtained from this study was the ethanol extract of white ginger effect on the proliferation of cell line MCF-7 that was proven by a decrease in the mean percentage of living cells along with increasing dose. IC_{50} that were obtaine at a dose of 57.37 mg / ml.

Ethanol extract of white ginger (*Curcuma zedoaria*) effect on the cell proliferation of MCF-7 breast cancer.

Keywords: MCF-7 Breast Cancer, White Ginger (*Curcuma zedoaria*).