

ABSTRACT

Rofiqoh, Ana Syuraiddah J. 2012. The Influences of α -Tocopherol to the Damage Cell, Viability, and the Abnormality on the Kidney of Hamster Primer Cell Culture induced by Ethanol. Thesis. Biology Department, Sciences and Technology Faculty of the State Islamic University Maulana Malik Ibrahim of Malang.

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Keywords α -Tocopherol, viabilities, abnormalities, damage percentages, kidney primer culture, ethanol.

Ethanol is chemical element frequently used in our live. It might be found in proof spirit which has maximum substance. Moreover, ethanol is considered harmful which causes free radical hydroxyl (OH) and radical hydroxyethyl (CH_3C) that is reacted with lipid, protein and DNA is caused cell toxic. α -Tocopherol is one of non enzyme antioxidants functioning to prevent radical in the cell by lessening free radical to be safe metabolite via giving ion hydrogen in chromanol ring. The aim of this study is to find out the roles of α -Tocopherol to the Damage Cell, Viability, and the Abnormality on the Kidney of Hamster Primer Cell Culture induced by Ethanol

The study was experimental research utilizing Anaova One Way done three times in condition that if it was found clear difference it would go to Least Significant Difference (LSD) 1%. The treatment was by giving E vitamin (α -Tocopherol) on cell culture prolific medium with $0\mu\text{M}$, $25\mu\text{M}$, $50\mu\text{M}$, $75\mu\text{M}$, $100\mu\text{M}$, $125\mu\text{M}$ substance which was induced by ethanol 10 mM for 24 hours later on. The kind of cell culture used here was the kidney of hamster primer cell culture which was growth back in DMEM media.

The research showed us α -Tocopherol to cell damage of starting from $50\mu\text{M}$ to viability cell starting from $75\mu\text{M}$ substances, and to abnormal cell starting from $25\mu\text{M}$ substances of ethanol 10 mM induction.