

ABSTRACT

Ferdiningsih, Lia. 2012. **Effect of Vitamin E (α -Tocopherol) in DMEM (*Dulbecco's Modified Eagle Medium*) on Proliferation Baby Hamster Kidney Culture Primary**. Thesis Departement of Biology, Faculty of Sciences and Technology, The State Islamic University of Maulana Malik Ibrahim Malang. Advisor Biology: Kiptiyah, M.Si. Advisor Religy: Amalia Fitri Andriani, M. Si.

Keywords: Vitamin E (α -Tokoferol), DMEM, Proliferation, Primery Culture, Kidney Cell, Foetal Hamster.

Vitamin E is a lipid-soluble antioxidant, protects cells from free radical both in vivo and in vitro. Vitamin E also may increase proliferation of cells in a way into the cell to activate the enzyme protein kinase which then will mengaktifasi protein transcription factors. A Protein factor transkripsi will trigger the process of transcription, and next will trigger cell cycle research is done by purpose to find out the role of vitamin E in DMEM media against the proliferation of renal cells of the foetal hamster.

This experimental research using RAL with 6 and 4-time treatment of Deuteronomy. The treatment used is administering vitamin E with the μ M concentrations of 0 μ M, 25 μ M, 50 μ M, 75 μ M, 100 μ M, and 125 μ M. Sample used is the hamster kidney cells fetus age 2 days. Kidney dikultur in DMEM medium containing FBS (Fetal Bovine Serume) 20% and vitamin E with different concentrations. Kidney cells incubated in the incubator for 96 hours temperature 37°C and 5% CO₂. Then on day 4, the primary cell culture of hamsters conducted observations of the fetus which include konfluenitas, viability, and cell abnormality.

The results showed that vitamin E effect on proliferation of renal cells covering hamster konfluenitas fetus, viability, and abnormality. The effect of Vitamin E konfluenitas, viability, and kidney cells of the fetus abnormality hamster is the concentration of 125 μ M, 125 μ M, and 25 μ M.