V. CONCLUSION AND RECOMMENDATION

A. CONCLUSION

Based on this research, Short Chain Fatty Acids (SCFA) derived from fermentation of type-3 resistant starch of *Ipomoea batatas* containing 1.00 and 1.25 mM butyrate produced DNA bands different from the control when measured with DNA ladder assay. The DNA bands of the treated cells appeared as longer smear. There were separate DNA bands in the floating cells in the treated medium (SCFA containing 0.625, 1.00, and 1.25 mM butyrate) at ±100 bp. These bands were not present in the control. DNA fragmentation was not clear in the attached cells, but was observed as a separate bands in the floating cells in the medium. This imply that SCFA might induce apoptosis at very early stage in the attached cells and later stage in the floating cells in the medium.

B. RECOMMENDATION

DNA fragmentation in this research was not clearly/optimally observed. This might relate to suboptimal DNA extraction. Isolation of apoptotic cells and optimazion methodology of DNA extraction should be done to get the best result of DNA fragmentation assay.