Effect of Solvents on Extraction of Lipid from *Dunaliella tertiolecta* LB999 Biomass

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Biodiesel could replace a portion of fossil fuels while reducing greenhouse gas emissions. Palm oil and soybean oil have been the major source of lipid for biodiesel production, but microalgae also hold great potentials for production of lipids for biodiesel. Among many processes involving biodiesel production from microalgal biomass, lipid extraction is one of the large contributors to high production cost of microalgal biodiesel. The objective of this study is developing efficient lipid extraction processes using various solvents for the biomass of a marine microalga *Dunaliella tertiolecta* LB999. The type of solvents, ratio of solvents to biomass, extraction temperature, and reaction time were tested and analyzed for the effective lipid extraction from the microalgae. The mixed solvent of methanol and chloroform was found to be the most effective, and pure methanol was also a good solvent to extract lipid from *Dunaliella tertiolecta* LB999.