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# Improvement Quality Of Agarose From *Glacilaria Verrucosa* Red Algae By Using NaOH And EDTA

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**Abstract:** Agar consisted of two component is agarose and agaropectin, that could be isolated from group *Rhodophyta* of seaweeds, such as *Glacilaria verrucosa*. Agarose is neutral polymer, while agaropectin is polymer that contain sulphate, so agarose can be used as gel electrophoresis. The aim of this research to improve quality of isolate agarosa from *Glacilaria* verrucosa with use NaOH and EDTA solution . Treatment of using NaOH solution to hydrolysis agar to break banding of agarose and agaropectin, where as EDTA solution bond the covalent ionic in agaropectin. Result of agarose which was obtained giving specific peak in spectra IR with wavenumber in the region 930 $cm^{-1}$ and 890 $cm^{-1}$, indicated 3,6-anhydro-l-galactose. Using NaOH 10% and EDTA solution caused drawback sulphate and ash content, but increase constant melted temperature, gel temperature and gel strength. The characteristics of agarose from this isolation were ash content 1,7180% (w/w), sulphate content 0,4897% (w/w), melted temperature 87 $^oC$, gel temperature 40 $^oC$, and gel strength 938,9 gram/$cm^2$.
**Key word :** Agar, Agarose, NaOH, EDTA, *Glacilaria verrucosa.*



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