

## ABSTRACT

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Study Program : Biomedicine

Title : Evaluation of *Sargassum sp.* methanol and ethanol extract on HeLa cell viability

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Cervical cancer remains a great threat in Indonesia and is predicted to claim more lives in the coming years. Development of natural drugs from marine-derived compounds show promising results with brown algae as the source of bioactive compounds. Phytochemical screening indicated the presence of fucose-containing polysaccharide that is expected to be fucoidan, which is known for pro-apoptotic ability in other cancers. In this experiment we investigated the effects ethanolic (EE) and methanolic (ME) extract from *Sargassum sp.* on the viability of cervical cancer cell line HeLa. Cells were subjected to a 24-hour treatment of EE and ME at various concentrations. ME show significantly higher antiproliferative activity as indicated by lower viable cells in MTT analysis. We deduce that antiproliferative is tied to the presence of a compound that is expected to be fucoidan which is more abundantly detected in ME. Interestingly, the increase in concentration does not give a significant difference. However, more studies need to be done on identifying and confirming the fucoidan content of *Sargassum sp.* to further confirm this suspicion.