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Potential nutritional and *in vitro* inhibitory effects on α -glucosidase of sea hare (*Dolabella auricularia*)

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Dolabella auricularia, also known as sea hare, is a marine gastropod that it found in the waters of Indo – Pacific. The aims of this research were to explore the potential of nutritional content of the species and *in vitro* anti-diabetic activity of sea hare extract. The composition of fatty acid was measured by gas chromatography, amino acids were measured by high performance liquid chromatography and mineral was measured by atomic absorption spectrophotometer. *In vitro* anti-diabetic activity of the sea hare extracts was evaluated by measuring their inhibitory effect on alpha-glucosidase level. The sea hare contained nine essential amino acids and six non-essential amino acids. Total saturated fatty acids was at 5.33% (g /100g), MUFA at 2.11% (g/ 100g), PUFA at 4.1% (g/100g). Calcium was at 68100 mg/kg, potassium at 10000 mg/kg, sodium at 8200 mg/kg, and carbohydrate at 1.52%. Sea hare ethyl acetate extract has *in vitro* anti-diabetic activity better than methanolic extract. The ethyl acetate extracts inhibited alpha-glocosidase activity *in vitro*, in a concentration dependent manner ($IC_{50}=25.76$ mg/mL). The present study confirms that sea hare had a rich source of nutritional and their inhibitory effects on alpha-glucosidase.

Biography

Azrifitria has completed her PhD at the Indonesia University School of Medicine. She is the Head of Pharmacy Department at Syarif Hidayatullah State Islamic University Jakarta, Indonesia. She has published several papers in reputed journals and get some course at pharmacy field at Tokushima Bunry Japan.

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