STRUCTURAL INVESTIGATION OF A GLUCURONOXYLORHAMNAN FROM THE GREEN SEAWEED *GAYRALIA* SP.

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Gayralia sp. was first classified in the Monostroma genus and only recently was dismembered from it. Currently, Gayralia remains in the order Ulvales, together with species of Ulva. *Ulva* spp. are producer of heteropolysaccharides which have the ulvanobiouronic acid 3-sulfate as major repeating disaccharide unit. On the other hand, *Monostroma* spp. biosynthesize 2- or 3-linked rhamnans, sulfated on C-2, C-3 or C-4. The present study was dedicated to determine the chemical structure of the polysaccharides produced by the green seaweed *Gayralia* sp. The purified water-soluble polysaccharide (Go6STZR) was submitted to carboxyl-reduction (Go6STZR-CR) and desulfation (Go6STZR-CRD). Methylation and ^{13}C-NMR analyses demonstrated that Go6STZR is mainly composed by 2- and 3-linked α-L-rhamnopyranosyl units mostly sulfated on C-3 and/or C-4. ^{13}C-NMR spectrum of Go6STZR-CRD showed major signals at δ 102.0 and δ 103.1, corresponding to 2- and 3-linked rhamnose, respectively. Glucuronic acid is present as 4-linked units as well as nonreducing terminal (NRT) 2-sulfated units, whereas NRT xylopyranosyl units (C-5 at δ 66.3) are not sulfated. These results suggest that *Gayralia* sp. produces specific heteropolysaccharides, different from those reported for Monostroma and Ulva species.

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