

Structural Characteristics of a Bioactive Polysaccharide from *Sorghum arundinaceum*

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A polysaccharide, an α -D-glucan with an apparent molecular weight of 6.85×10^4 , called PSa glucan, was isolated from fresh seeds of *Sorghum arundinaceum* by fractionation on Sephacryl S-300 HR and Sephadex G-25. Chemical and spectroscopic studies indicated that it has a highly branched glucan type structure composed of α -(1 \rightarrow 4) linked D-glucopyranose residues with (1 \rightarrow 3), (1 \rightarrow 6) branching points, and a significant amount of α -(1 \rightarrow 6) branching to α -(1 \rightarrow 3) linked D-glucopyranose residues. The anti-inflammatory activity of the polysaccharide was performed using the capillary permeability assay.

Key words: *Sorghum arundinaceum*, α -D-Glucan, Anti-Inflammatory Activity