

Supplementary Materials

Understanding Antidiabetic Potential of Oligosaccharides from Red Alga Dulse *Devaleraea inkyuleei* Xylan by Investigating α -Amylase and α - Glucosidase Inhibition

Martin Alain Mune Mune ^{1,*}, Tadashi Hatanaka ², Hideki Kishimura ³, Yuya Kumagai ^{3,*}

¹ Faculty of Science, University of Maroua, PO Box 814, Maroua, Cameroon; alainmune@gmail.com (M.A.M.M.)

² Okayama Prefectural Technology Center for Agriculture, Forestry and Fisheries, Research Institute for Biological Sciences (RIBS), Okayama, 7549-1 Kibichuo-cho, Kaga-gun, Okayama, Japan; hatanaka@bio-ribs.com (T.H.)

³ Laboratory of Marine Chemical Resource Development, Faculty of Fisheries Sciences, Hokkaido University, Hakodate, Hokkaido 041-8611, Japan; i-dulse@fish.hokudai.ac.jp (H.K.); yuyakumagai@fish.hokudai.ac.jp (Y.K.)

* Correspondence: alainmune@gmail.com (M.A.M.M.), yuyakumagai@fish.hokudai.ac.jp (Y.K.)

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Table S1. Fractionation of XOS and the yield of fractions, and the purity of given oligosaccharide in the fraction calculated by HPLC analysis.

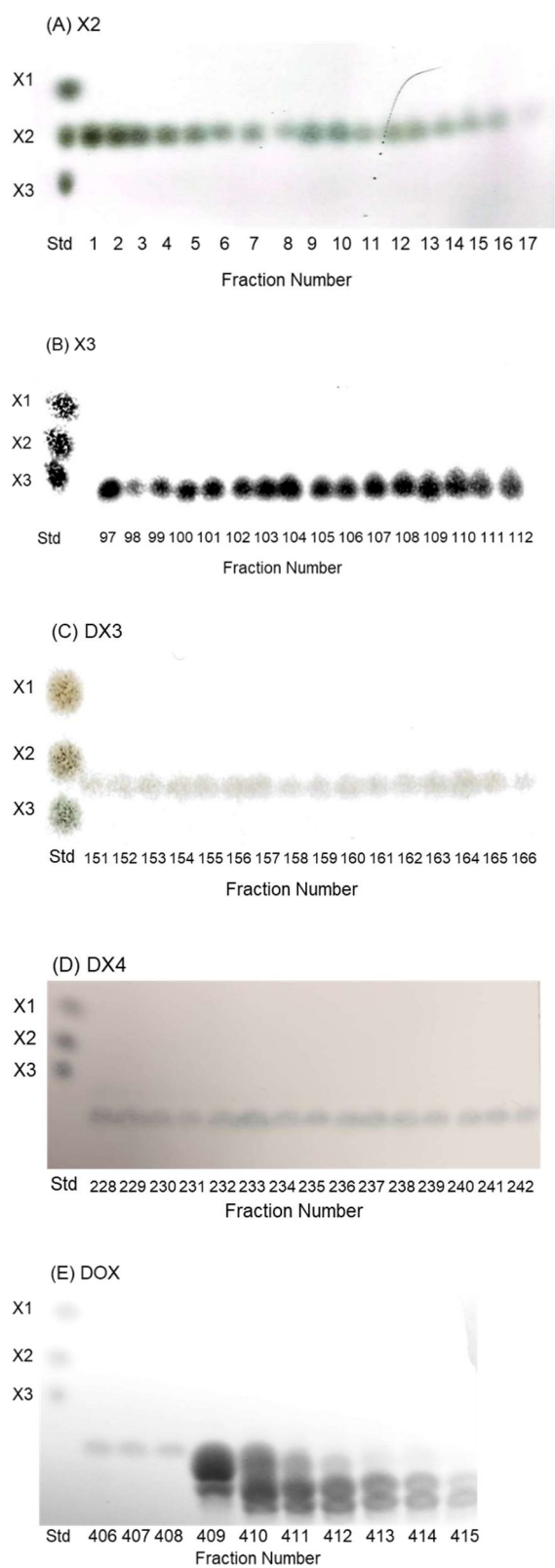


Figure S1. TLC of purified XOS by an activated carbon chromatography.

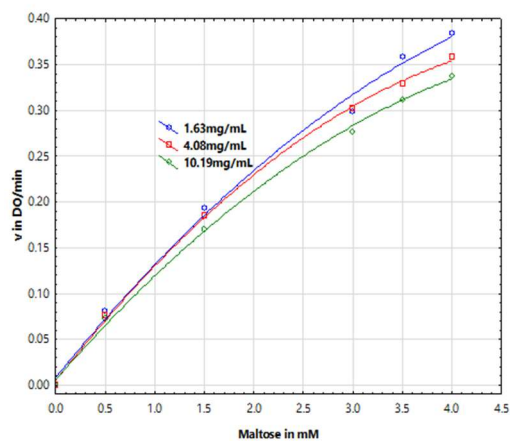
Table S1. Fractionation of XOS and the yield of fractions, and the purity of given oligosaccharide in the fraction calculated by HPLC analysis

Number	Ethanol (%, v/v)	Fraction number	Composition	Mass (g)	Percentage (%)	Yield* (%)	Purity** (%)
1	5	1-86	X2	0.5416	17.59	13.54	74.5
	10	87-96					
2	10	97-113	X3	0.2193	7.12	5.48	81.5
	10	114-130					
3	10	131-150	X3-DX3	0.0854	2.77	2.14	-
4	10	151-196	DX3	0.1176	3.82	2.94	66.4
	15	197-209					
5	15	210-221	DX3-DX4	0.0572	1.86	1.43	-
6	15	222-308	DX4	0.9056	29.49	22.64	63.8
	20	309-331					
	20	332-383					
	50	384-405					
7	50	406-425	DOX Mixture	1.1524	37.43	28.81	-
Total		425		3.0791	100	76.98	

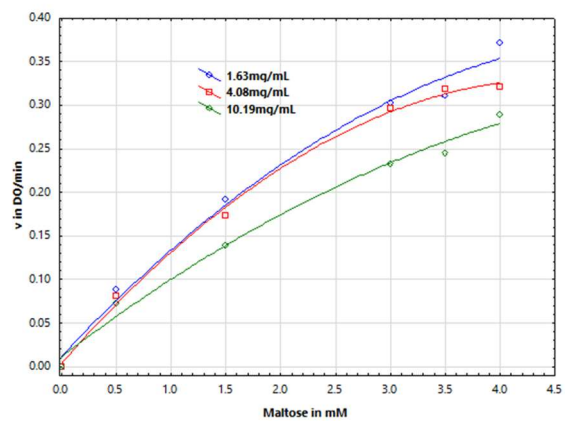
*, Yield = mass of fraction / mass of xylan × 100

**, Purity = mass of XOS / mass of the fraction × 100

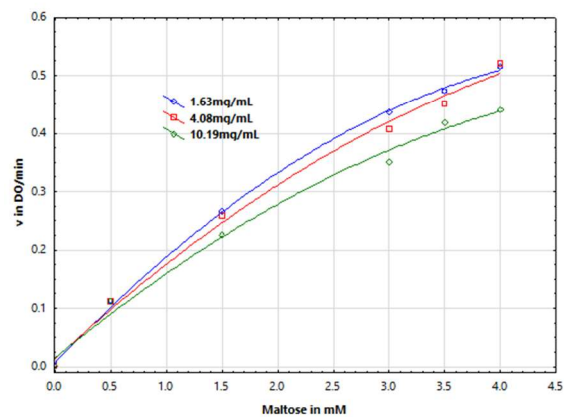
(A) X2



(B) X3



(C) DX3



(D) DX4

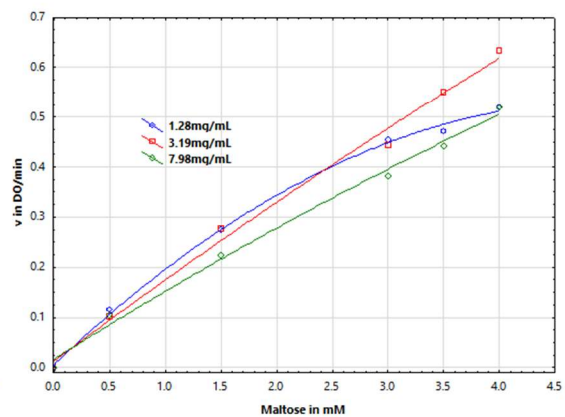


Figure S2. Michaelis-Menten plot for the inhibition of MGAM by XOS. (A) X2, (B) X3, (C) DX3, (D) DX4.

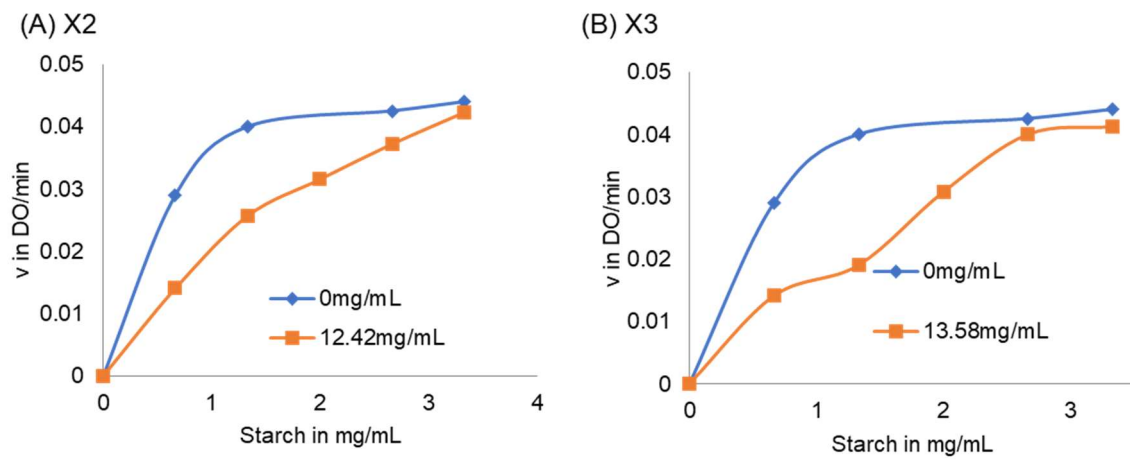


Figure S3. Michaelis-Menten plot for the inhibition of α -amylase by XOS. (A) X2, (B) X3.