

Supplementary Material

Quaternary structure of WzzB and WzzE Polysaccharide Co- Polymerases

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Figure S1. Size-exclusion chromatography of WzzB and WzzE proteins in select detergents including decyl-maltoside (DM), octyl-glucoside (OG), and dodecyl-Dimethylamine-N-oxide (LDAO).

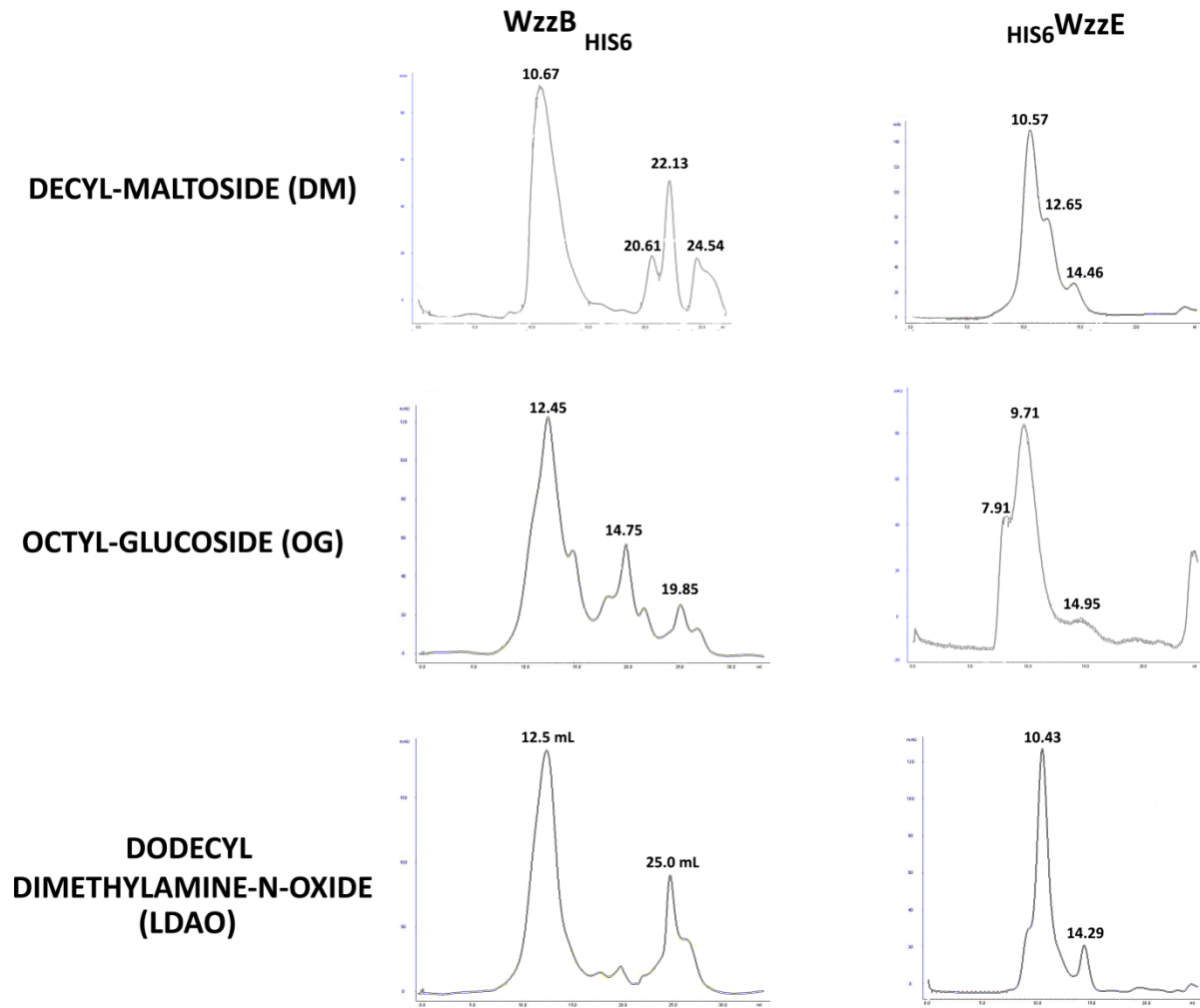
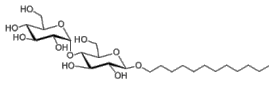
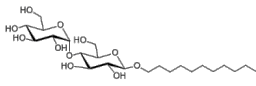
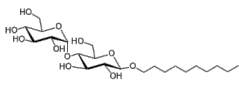
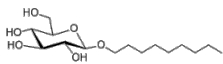
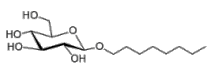
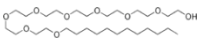
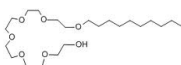
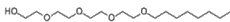
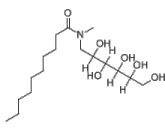
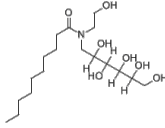
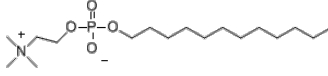
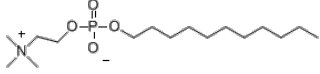
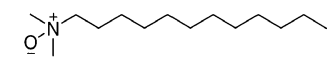
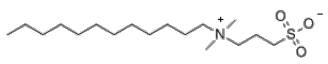
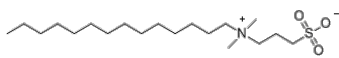
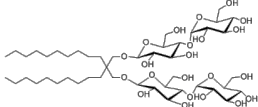
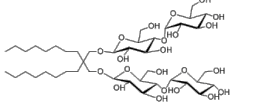
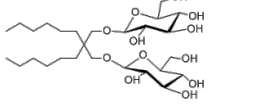
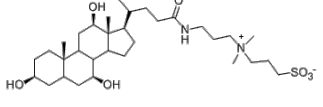
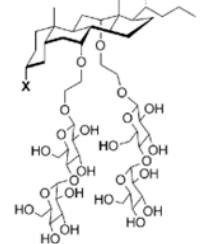


Table S1. A summary of the detergents used for WzzE purification and crystallization.

Detergent	Abbrev.	Conc (%/mM)	Chemical Structure	Outcome
dodecyl- β -maltopyranoside	DDM	0.02/0.4		Crystals (20A)
undecyl- β -maltopyranoside	UDM	0.15/1.0		Crystals (no diffraction)
decyl- β -maltopyranoside	DM	0.18/3		Crystals (28A)
nonyl- β -glucoside	NG	0.4/12		Protein Precipitation
octyl- β -glucoside	OG	0.8/36		No Crystals
polyoxyethylene(8)dodecyl ether	C12E8	0.072/0.5		Crystals (10A)
polyoxyethylene(6)decyl Ether	C10E6	0.076/1.8		Poor SEC Profile
tetraethylene Glycol Monooctyl Ether	C8E4	0.5/18		Crystals
decanoyl-N-Methylglucamide	MEGA-10	0.4/14		No Crystals
decanoyl-N-hydroxyethylglucamide	HEGA-10	0.5/14		Protein Precipitation
n-Dodecylphosphocholine	FOS-12	0.1/3		No Crystals
n-Undecylphosphocholine	FOS-11	0.15/4		No Crystals
n-Dodecyl-N,N-Dimethylamine-N-Oxide	LDAO	0.05/4		Crystals 6.3A
n-Dodecyl-N,N-Dimethyl-3-Ammonio-1-Propanesulfonate	Anzergent-12	0.2/6		Crystals (12A)

n-Tetradecyl-N,N-Dimethyl-3-Ammonio-1-Propanesulfonate	Anzergent-14	0.01/0.4		Crystals (12A)
lauryl maltose neopentyl glycol	LMNG	0.250 mM		Poor SEC Profile
decyl maltose neopentyl glycol	DMNG	0.250 mM		Poor SEC Profile
octyl glucose neopentyl glycol	OGNG	2 mM		Poor SEC Profile
3-[(3-cholamidopropyl)dimethylammonio]-1-propanesulfonate	CHAPS	10 mM		Poor SEC Profile
3 α -hydroxy-7 α ,12 α -di-((O- β -D-maltosyl)-2-hydroxyethoxy)-cholane	FA-3	0.2 mM		Protein Precipitation