

Table S1. Comparison of ^1H and ^{13}C NMR chemical shifts between the O-specific polysaccharide from the *E. coli* strain SD2019180 and the DPS of *E. coli* O9:K33:H-.

Residue		Chemical shifts (ppm)					
		1-H/1-C	2-H/2-C	3-H/3-C	4-H/4-C	5-H/5-C	6-H/6-C
α -D-Galp	SD2019180						
	O-antigen	5.23/100.0	3.74/68.9	3.82/69.2	3.69/69.6	4.06/71.3	3.68, 3.70/61.7
	O9:K33:H- DPS	5.26/101.3	3.78/69.6	3.91/70.2	4.01/70.6	4.15/72.2	3.72, 3.72/62.6
α -L-Fucp	SD2019180						
	O-antigen	5.05/99.8	3.95/67.9	4.02/73.9	4.14/80.1	4.42/67.5	1.30/15.2
	O9:K33:H- DPS	5.29/100.2	4.05/69.4	4.05/75.6	4.11/81.2	4.41/68.4	1.31/16.2
β -D-GlcpA	SD2019180						
	O-antigen	4.65/103.7	3.45/73.3	3.57/75.2	3.63/71.3	3.98/75.8	-/169.0
	O9:K33:H- DPS	4.55/104.5	3.46/75.5	3.79/76.9	3.88/78.7	3.76/78.4	-/174.9