

Supplemental Table 1. **Bacterial O-specific polysaccharides on array**

ID numbers correspond to entries in the Bacterial Carbohydrate Structure DataBase (www.glyco.ac.ru/bcsdb3).

Array	Bacterial strain	ID	Polysaccharide structure
1	<i>Escherichia coli</i> O29	20208	a-D-Glcp-(1-6)-a-D-Galp-(1-3)-+ -3)-D-Gro-(1-P-6)-b-D-Glcp-(1-4)-a-L-FucpNac-(1-3)-b-D-GlcpNac-(1-
2	<i>Escherichia coli</i> O40	21403 23075	-2)-b-D-Galp-(1-4)-b-D-Manp-(1-4)-a-D-Galp-(1-3)-b-D-GlcpNac-(1-
3	<i>Escherichia coli</i> O106	20655 21694	a-D-Glcp-(1-4)-+ -6)-a-D-Manp-(1-2)-a-D-Manp-(1-2)-b-D-Manp-(1-3)-a-D-GlcpNac-(1-
4	<i>Escherichia coli</i> O130	21749	Gro-(2-P-4)-b-D-GalpNac-(1-3)-+ -4)-a-D-Galp-(1-6)-b-D-Glcp-(1-3)-b-D-GalpNac-(1-
5	<i>Escherichia coli</i> O148	21578 23062	-3)-a-L-Rhap-(1-3)-a-L-Rhap-(1-2)-a-D-Glcp-(1-3)-a-D-GlcpNac-(1-
6	<i>Escherichia coli</i> O150:H6	23079 21743	S-lac-(2-4)-+ -3)-b-D-GlcpNac-(1-2)-a-L-Rhap-(1-2)-a-L-Rhap-(1-3)-a-L-Rhap-(1-3)-b-D-GlcpNac-(1- b-D-Glcp-(1-2)-+
7	<i>Escherichia coli</i> O180/C3	10174	2)-b-D-Quip3Nac-(1-3)-b-D-Ribf-(1-4)-b-D-Galp-(1-3)-a-D-GalpNac-(1-
8	<i>Proteus mirabilis</i> 3a, O3c	4700	L-Lys-(2-6)-a-D-GalpA-(1-4)-+ -6)-b-D-GalpNac-(1-4)-b-D-GlcpA-(1-3)-b-D-GalpNac-(1-
9	<i>Proteus mirabilis</i> O8 <i>Proteus vulgaris</i> O8	4030	a-D-Galp-(1-3)-+ -3)-b-D-GlcpA-(1-4)-a-L-FucpNac-(1-3)-a-D-GlcpNac-(1-

10	<i>Proteus mirabilis</i> O10	4664	a-L-AltpA-(1-3)-+ -4)-a-D-GalpNac-(1-3)-a-D-GalpA-(1-3)-a-D-GlcpNac-(1-
11	<i>Proteus mirabilis</i> O29a,29b	10129	a-D-GalpNac-(1-3)-+ a-D-Glcp-(1-2)-+ -6)-b-D-GalpNac-(1-4)-b-D-GlcpA-(1-3)-b-D-GalpNac-(1-
12	<i>Proteus mirabilis</i> O50	2850	b-D-Glcp-(1-4)-+ -3)-b-D-GlcpA-(1-4)-b-D-GalpNac-(1-4)-b-D-Galp-(1-3)-b-D-GlcpNac-(1-
13	<i>Proteus mirabilis</i> O54a, 54b	20237	D-Gro-(1-P-4)-+ -6)-a-D-GlcpNac-(1-3)-b-D-Galp-(1-3)-a-D-GalpNac-(1-
14	<i>Providencia alcalifaciens</i> O5	5945	-4)-b-D-Quip3Nac-(1-3)-a-D-Galp-(1-3)-b-D-Galp-(1-3)-b-D-GlcpNac-(1-
15	<i>Providencia alcalifaciens</i> O19	9276	-2)-b-D-Fucp3Nac4Ac-(1-3)-a-D-GlcpNac-(1-4)-a-D-Galp-(1-4)-b-D-Galp-(1-3)-b-D-GlcpNac-(1-
16	<i>Providencia alcalifaciens</i> O21	2840	a-D-Fucp3NFo-(1-4)-+ -3)-a-D-GalpA-(1-4)-a-D-GalpNac-(1-4)-a-D-GalpNac-(1-3)-b-D-GalpNac-(1-
17	<i>Providencia rustigianni</i> O14	2841	(2S,8S)-cetLys-(2-6)-+ -3)-a-D-GalpA-(1-4)-a-D-GalpNac-(1-3)-a-D-GlcpNac-(1-
18	<i>Providencia stuartii</i> O18	10467	-4)-b-D-Quip3Nac-(1-6)-a-D-GlcpNac-(1-4)-b-D-GlcpA-(1-3)-a-D-GalpNac-(1-
19	<i>Providencia stuartii</i> O44	10079	b-D-GlcpA-(1-4)-+ -4)-a-D-GalpNac-(1-3)-a-L-Fucp-(1-3)-a-D-Glcp-(1-4)-a-L-Quip-(1-3)-a-D-GlcpNac-(1-
20	<i>Pseudomonas aeruginosa</i> O1 (IATS 1, FI4)	20553	-4)-a-D-GalpNac-(1-4)-b-D-GlcpNac3NacA-(1-3)-a-D-FucpNac-(1-3)-a-D-QuipNac-(1-

21	<i>Pseudomonas aeruginosa</i> O2 (IATS 18, FI7)	20560	-4)-a-L-GulpNAc3NAmA-(1-4)-b-D-ManpNAc3NAcA-(1-3)-a-D-FucpNAc-(1-
22	<i>Pseudomonas aeruginosa</i> O2a,2b (IATS 16)	20554	-4)-b-D-ManpNAc3NAmA-(1-4)-b-D-ManpNAc3NAcA-(1-3)-b-D-FucpNAc-(1-
23	<i>Pseudomonas aeruginosa</i> O2a,2b,2e	20555	-4)-b-D-ManpNAc3NAmA-(1-4)-b-D-ManpNAc3NAcA-(1-3)-b-D-FucpNAc4Ac-(1-
24	<i>Pseudomonas aeruginosa</i> O2a,(2c) (IATS 2, FI3)	20556	-4)-b-D-ManpNAc3NAmA-(1-4)-b-L-GulpNAc3NAcA-(1-3)-a-D-FucpNAc-(1-
25	<i>Pseudomonas aeruginosa</i> O2a,2d	20557	-4)-b-D-ManpNAc3NAmA-(1-4)-b-D-ManpNAc3NAcA-(1-3)-a-D-FucpNAc-(1-
26	<i>Pseudomonas aeruginosa</i> O3a,3b	20561	(S)-3HOBu-(1-4)-+ -2)-a-L-Rhap3Ac-(1-6)-a-D-GlcpNAc-(1-4)-a-L-GalpNAcA-(1-3)-b-D-QuipNAc4N-(1-
27	<i>Pseudomonas aeruginosa</i> O3a,3b,3c (IATS 3)	122939	(S)-3HOBu-(1-4)-+ -2)-a-L-Rhap3Ac-(1-6)-a-D-GlcpNAc-(1-4)-a-L-GalpNAcA3Ac-(1-3)-b-D-QuipNAc4N-(1-
28	<i>Pseudomonas aeruginosa</i> O3a,3d	20563	-3)-a-L-Rhap-(1-6)-a-D-GlcpNAc-(1-4)-a-L-GalpNAcA-(1-3)-b-D-QuipNAc4NAc-(1-
29	<i>Pseudomonas aeruginosa</i> O4a,4c	20565	-2)-a-L-Rhap-(1-3)-a-L-FucpNAc-(1-3)-a-L-FucpNAc-(1-3)-a-D-FucpNAc-(1-
30	<i>Pseudomonas aeruginosa</i> O6 (FI1)	20570	-2)-a-L-Rhap-(1-4)-a-D-GalpNAcA3Ac-(1-4)-a-D-GalpNFoA-(1-3)-a-D-QuipNAc-(1-
31	<i>Pseudomonas aeruginosa</i> O6a (IATS 6)	20566	-3)-a-L-Rhap-(1-4)-a-D-GalpNAcA3Ac-(1-4)-a-D-GalpNFoA-(1-3)-a-D-QuipNAc-(1-
32	<i>Pseudomonas aeruginosa</i> O6a,6c	20568	-3)-a-L-Rhap-(1-4)-a-D-GalpNAcA-(1-4)-a-D-GalpNFoA-(1-3)-a-D-QuipNAc-(1-
33	<i>Pseudomonas aeruginosa</i> O13a,13b (IATS 13)	123031	-2)-a-L-Rhap-(1-3)-a-L-Rhap-(1-4)-a-D-GalpNAcA3Ac-(1-3)-b-D-QuipNAc-(1-

34	<i>Pseudomonas aeruginosa</i> O10a,10b (IATS 10)	20576	-3)-a-L-Rhap2Ac-(1-4)-a-L-GalpNAcA-(1-3)-a-D-QuipNAc-(1-
35	<i>Pseudomonas aeruginosa</i> O10a,10c (IATS 19)	20577	-3)-a-L-Rhap-(1-4)-a-L-GalpNAcA-(1-3)-a-D-QuipNAc-(1-
36	<i>Pseudomonas aeruginosa</i> O11a,11b (IATS 11)	20578	-2)-b-L-Glcp-(1-3)-a-L-FucpNAc-(1-3)-b-D-FucpNAc-(1-
37	<i>Pseudomonas aeruginosa</i> O12 (IATS 12)	20579	-8)-a-8eLegp5Ac7Ac-(2-3)-a-L-FucpNAc-(1-3)-a-D-QuipNAc-(1-
38	<i>Pseudomonas aeruginosa</i> O13a,13b (IATS 13)	20580	-2)-a-L-Rhap-(1-3)-a-L-Rhap-(1-4)-a-D-GalpNAc3AcA-(1-3)-b-D-QuipNAc-(1-
39	<i>Pseudomonas aeruginosa</i> O13a,13c (IATS 14)	20581	a-D-Glcp-(1-3)-+ -2)-a-L-Rhap-(1-3)-a-L-Rhap-(1-4)-a-D-GalpNAcA-(1-3)-b-D-QuipNAc-(1-
40	<i>Pseudomonas aeruginosa</i> O14 (IATS 17)	20582	-4)-a-L-Rhap-(1-3)-b-D-ManpNAc-(1-
41	<i>Pseudomonas aeruginosa</i> O15 (IATS 15)	20583	-2)-b-D-Ribf-(1-3)-a-D-GalpNAc-(1-
42	<i>Shigella boydii</i> type 2	114007	b-D-Galf-(1-3)-+ -2)-a-L-Rhap-(1-2)-a-L-Rhap-(1-2)-b-D-Ribf-(1-4)-a-D-GalpA-(1-3)-a-D-GlcpNAc-(1-
43	<i>Shigella boydii</i> type 4	108649	a-D-Glcp-(1-2)-+ -3)-a-L-Rhap-(1-4)-b-D-GlcpA-(1-3)-b-L-Rhap-(1-4)-b-D-GlcpNAc-(1-
44	<i>Shigella boydii</i> type 10	10148	b-D-Ribf-(1-4)-b-D-GlcpA-(1-4)-+ -3)-a-D-Galp-(1-6)-a-D-Manp-(1-2)-a-D-Manp-(1-3)-b-D-GalpNAc-(1-

45	<i>Shigella dysenteriae</i> type 3	20016	(R)-lac-(2-4)-b-D-Glcp-(1-6)-a-D-Glcp-(1-4)-+ -3)-b-D-Galp-(1-6)-b-D-Galf-(1-3)-b-D-GalpNAc-(1-
46	<i>Shigella dysenteriae</i> type 8	108662	b-D-GlcpNAc-(1-4)-b-D-Glcp-(1-4)-+ -4)-b-D-GlcpA-(1-3)-b-D-GalpNAc-(1-3)-b-D-GalpNAc-(1-
47	<i>Shigella dysenteriae</i> type 11	23077	a-D-Glcp-(1-6)-a-D-Galp-(2-Ac ~25%)-(1-3)-+ -3)-D-Gro-(3-P-6)-b-D-Glcp-(1-4)-a-L-FucpNAc-(1-3)-b-D-GlcpNAc-(1-
48	<i>Shigella dysenteriae</i> type 13	23079	(S)-lac-(2-4)-+ -3)-b-D-GlcpNAc-(1-2)-a-L-Rhap-(1-3)-a-L-Rhap-(1-3)-b-D-GlcpNAc-(1- b-D-Glcp-(1-2)-+

Abbreviations: Am, acetimidoyl; cetLys, N^ε-(1-carboxyethyl)lysine; Fo, formyl; lac, 1-carboxyethyl (a lactic acid residue); 3-HOBut, 3-hydroxybutanoyl; 8eLeg, 5,7-diamino-3,5,7,9-tetradecoxy-L-glycero-D-manno-non-2-ulosonic (8-epilegionaminic) acid.