SUPPLEMENTAL FIGURES AND TABLES

FIG S1 SDS- PAGE (8% acrylamide) of EPS stained with Coomassie Brilliant Blue R-250 (left) and silver-stained SDS-PAGE (8% acrylamide) of EPS (right).

FIG S2 GC/MS chromatogram performed on EPS sample isolated from *Psa* NZ V-13.

FIG S3 ^{1}H-NMR spectrum of the EPS dissolved in D_2O recorded at 60°C (500MHz). Insert shows expanded plot of anomeric region. Letters refer to sugar residues shown in Fig. 5.

FIG S4 ^{13}C -NMR spectrum of the EPS dissolved in D_2O recorded at 60°C (500MHz). Inserts show expanded plot of anomeric region (left) and CH3 of C-6 of deoxysugars (right). Letters refer to sugar residues shown in Fig. 5.

FIG S5 HSQC spectrum of the *Psa* NZ V-13 - EPS dissolved in D_2O recorded at 60°C (500MHz).

FIG S6 ^{1}H-^{13}C-HSQC spectrum of the ring sugar (A) and anomeric (B) regions of the *Psa* NZ V-13- EPS dissolved in D_2O recorded at 60°C (500MHz). Letters refer to sugar residues shown in Fig. 5 and numbers to carbons in sugar rings.

FIG S7 ^{1}H-^{1}H COSY NMR spectrum of the *Psa* NZ V-13 -EPS dissolved in D_2O recorded at 60°C (500MHz).

FIG S8 ^{1}H-^{1}H COSY spectrum of the *Psa* NZ V-13 -EPS dissolved in D_2O recorded at 60°C (500MHz). Letters refer to sugar residues shown in Fig. 5 and numbers to proton cross-peaks in the sugar rings.

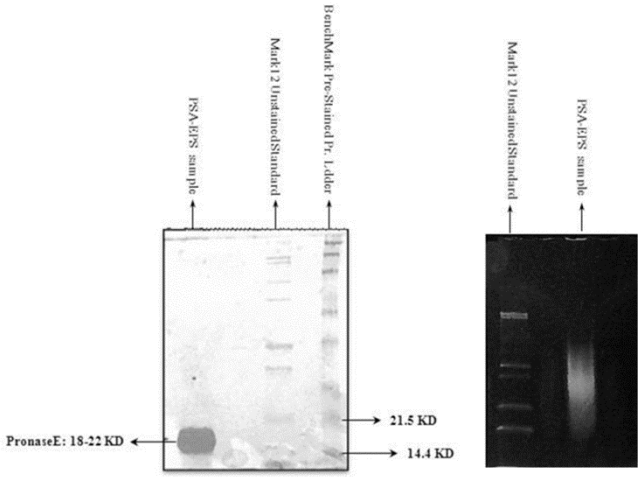
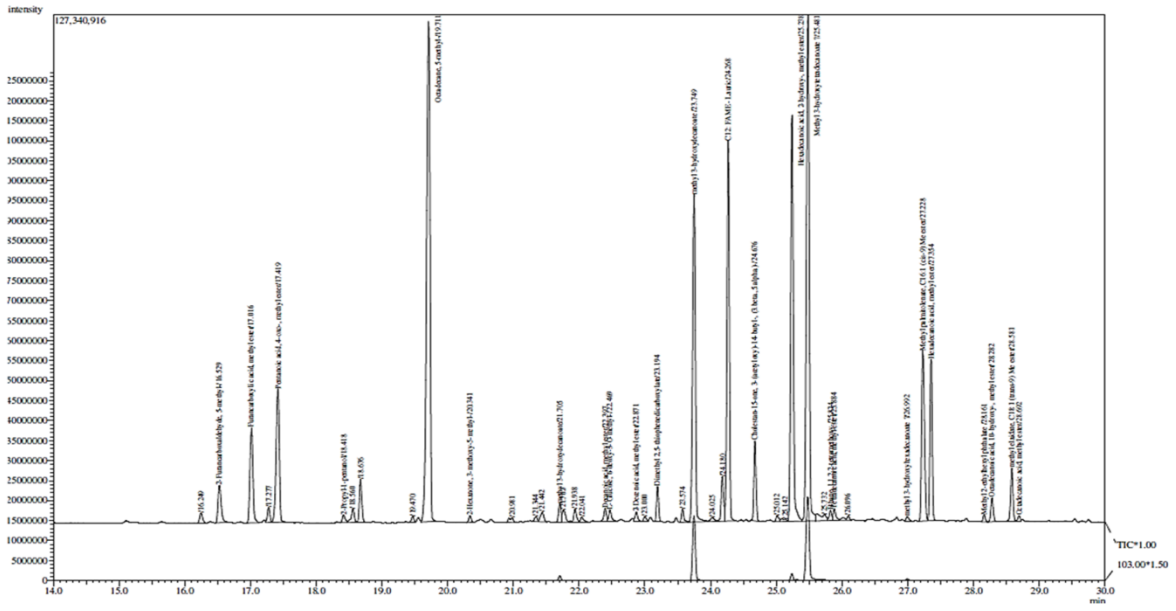

ISA-IFS sample
Mark12 UnstainedStandard
BenchMark PreStained Pr. Ladder
21.5 KD
PronaseE: 18-22 KD
14.4 KD
Mark12 UnstainedStandard
ISA-IFS sample

Fig. S1



Continued

GCMS Peak Report TIC

Peak#	R.Time	Area	Name	Area%
1	7.034	32442842	Ethane, 1,1,2-trimethoxy-	1.29
2	7.640	3209375	Ethane, 1,1,2-trimethoxy-	0.13
3	8.900	5181291	2-Furancarboxaldehyde	0.21
4	10.384	5449126	Ethylbenzene	0.22
5	10.525	40505528	Sulfuric acid, dimethyl ester	1.61
6	10.861	21779483	Benzene, 1,2-dimethyl-	0.86
7	12.285	7919916	Benzene, 1,2-dimethyl-	0.31
8	16.249	7503712		0.30
9	16.529	30717337	2-Furancarboxaldehyde, 5-methyl-	1.22
10	17.016	72795021	Furancarboxylic acid, methyl ester	2.89
11	17.277	9684831		0.38
12	17.419	113833982	Pentanoic acid, 4-oxo-, methyl ester	4.52
13	18.418	5780403	2-Propyl-1-pentanol	0.23
14	18.560	10574206		0.42
15	18.676	26796056		1.06
16	19.470	3981213		0.16
17	19.711	461618225	Octadecane, 5-methyl-	18.32
18	20.341	4166092	2-Hexanone, 3-methoxy-5-methyl-	0.17
19	20.981	4755279		0.19
20	21.344	3637879		0.14
21	21.442	8387363		0.33
22	21.705	11584631	methyl 3-hydroxydecanoate	0.46
23	21.762	10272315		0.41
24	21.938	9611419		0.38
25	22.041	3787038		0.15
26	22.397	8675618	Decanoic acid, methyl ester	0.34
27	22.469	8277321	L-Glucose, 6-deoxy-3-O-methyl-	0.33
28	22.871	6593497	2-Decenoic acid, methyl ester	0.26
29	23.000	3699611		0.15
30	23.194	19839738	Dimethyl 2,5-thiophenedicarboxylate	0.79
31	23.574	8286898		0.33
32	23.749	229704737	methyl 3-hydroxydecanoate	9.11
33	24.025	4507784		0.18
34	24.180	30517822		1.21
35	24.268	239095717	C12: FAME - Lauric	9.49
36	24.676	44699399	Cholestan-15-one, 3-(acetyloxy)-14-butyl-, (3.beta.,5.alpha.)-	1.77
37	25.012	4587064		0.18
38	25.142	3548025		0.14
39	25.238	289978755	Hexadecanoic acid, 2-hydroxy-, methyl ester	11.51
40	25.481	390188035	Methyl 3-hydroxytetradecanoate ?	15.48
41	25.732	14477950		0.57
42	25.824	6331957	Ethane, 1,1,2,2-tetramethoxy-	0.25
43	25.884	8178309	Tetradecanoic acid, methyl ester	0.32
44	26.096	5207149		0.21
45	26.992	2876159	methyl 3-hydroxyhexadecanoate ?	0.11
46	27.228	124276484	Methyl palmitolenate, C16:1 (cis-9) Me ester	4.93
47	27.354	95075856	Hexadecanoic acid, methyl ester	3.77
48	28.161	4230986	Methyl 2-ethylhexyl phthalate	0.17
49	28.282	15418871	Octadecanoic acid, 10-hydroxy-, methyl ester	0.61
50	28.581	32785234	methyl elaidate, C18:1 (trans-9) Me ester	1.30
51	28.692	3379566	Octadecanoic acid, methyl ester	0.13

 Fig. S2

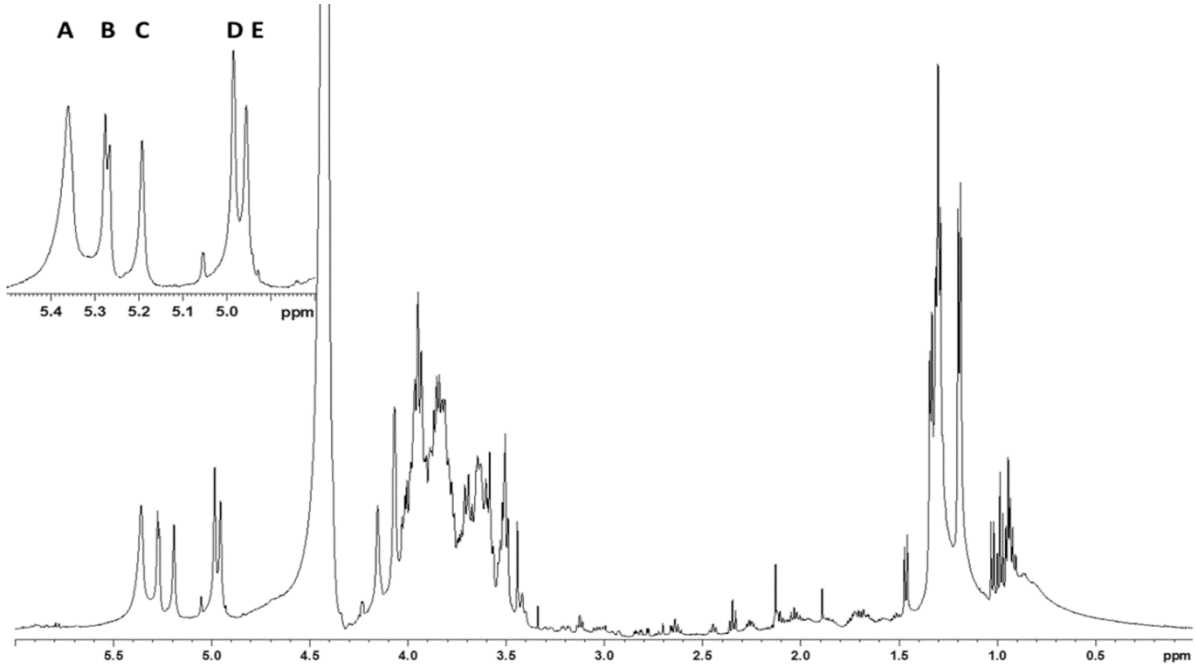


Fig. S3

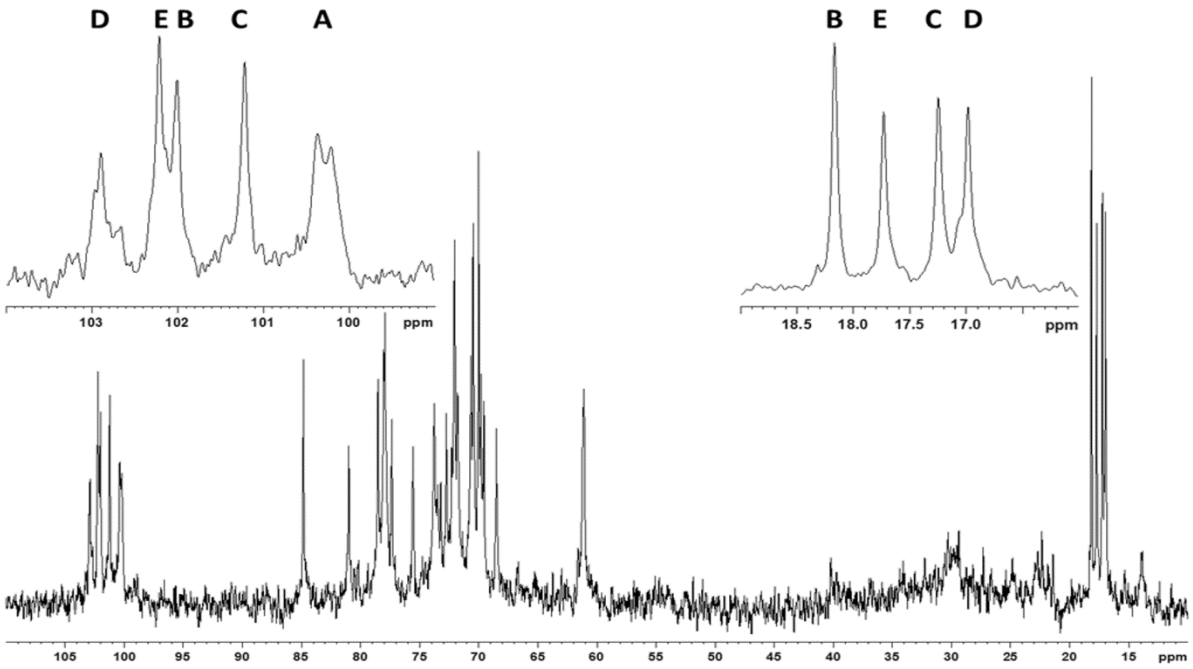

D E B C A
103 102 101 100 ppm
B E C D
18.5 18.0 17.5 17.0 ppm
105 100 95 90 85 80 75 70 65 60 55 50 45 40 35 30 25 20 15 ppm

Fig. S4

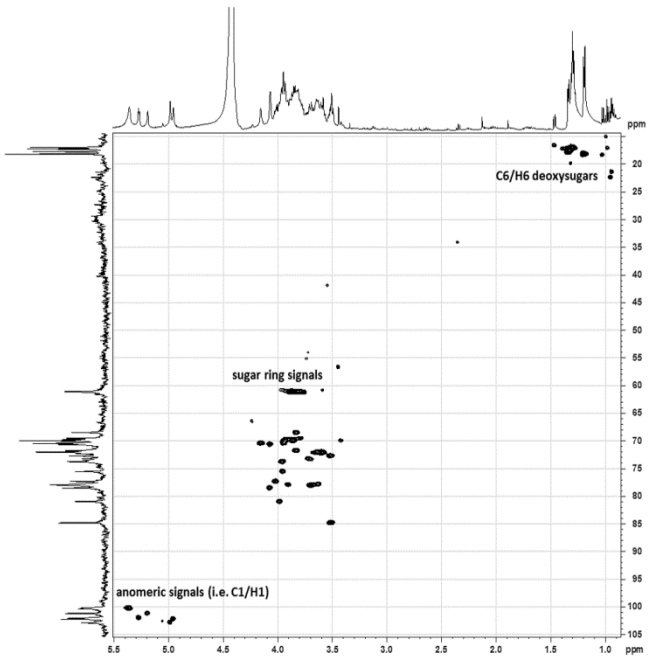

C6/H6 deoxysugars
sugar ring signals
anomeric signals (i.e. C1/H1)
ppm

Fig. S5

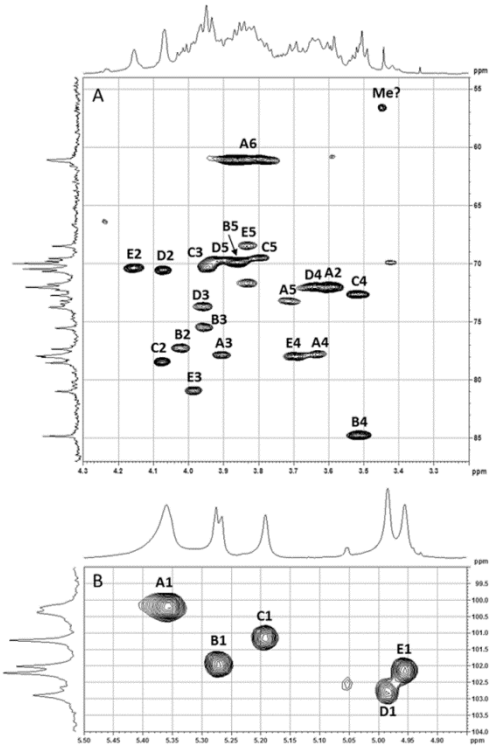

A
Me?
A6
B5
E5
E2
D2
C3
D5
C5
D4
A2
A5
C4
D3
B3
B2
C2
A3
E4
A4
E3
B4
B
A1
C1
B1
E1
D1
ppm

Fig. S6

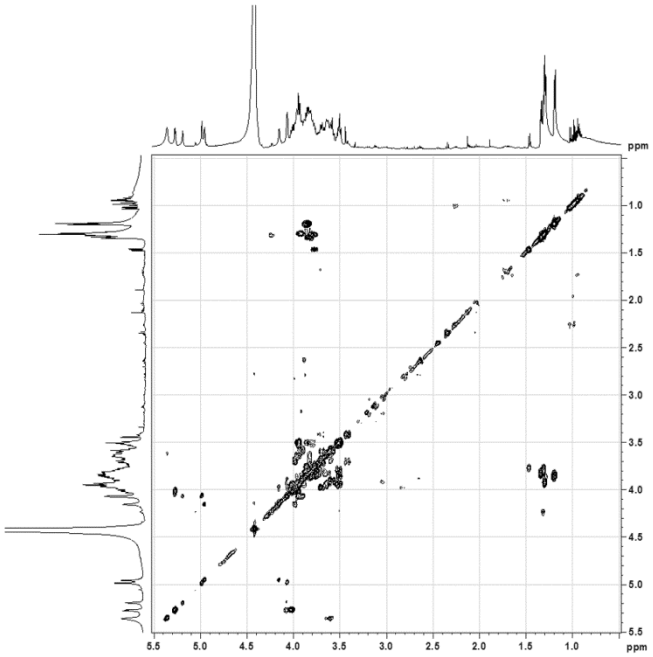

ppm
1.0
1.5
2.0
2.5
3.0
3.5
4.0
4.5
5.0
5.5
5.5 5.0 4.5 4.0 3.5 3.0 2.5 2.0 1.5 1.0
ppm

Fig. S7

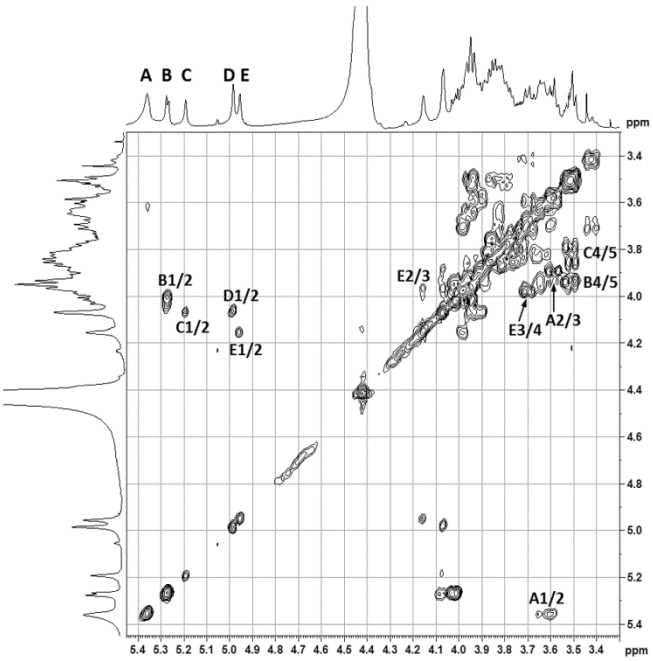

A B C
D E
ppm
3.4
3.6
3.8
4.0
4.2
4.4
4.6
4.8
5.0
5.2
5.4
B1/2
C1/2
D1/2
E1/2
E2/3
C4/5
B4/5
E3/4
A2/3
A1/2
5.4 5.3 5.2 5.1 5.0 4.9 4.8 4.7 4.6 4.5 4.4 4.3 4.2 4.1 4.0 3.9 3.8 3.7 3.6 3.5 3.4
ppm

Fig. S8

TABLE S1 ^{1}H-NMR and ^{13}C-NMR of the EPS composition

Sugar residue	Nucleus	Chemical shift of proton and carbon (ppm)					
		1	2	3	4	5	6
→4)-α-D-Glc*p*-(1→	^{1}H	5.36	3.60	3.91[b]	3.63[b]	3.72	3.87/3.81
	^{13}C	100.4	72.1	77.9[b]	77.7[b]	73.2	61.1
α-D-Fuc*f*-(1→	^{1}H	5.27	4.02	3.95[d]	3.51	3.86	1.20
	^{13}C	102.0	77.3	75.6[d]	84.8	69.9	18.1
→2)-α-D-Rha*p*-(1→	^{1}H	5.20	4.07	3.94[b]	3.52[b]	3.79	1.31[c]
	^{13}C	101.2	78.5	70.3[b]	72.7[b]	69.5	17.1[c]
→3)-α-D-Rha*p*-(1→	^{1}H	4.99	4.06	3.95[d]	3.64[b]	3.92	1.30[c]
	^{13}C	102.9	70.6	73.7[d]	72.0[b]	69.8	17.0[c]
→3,4)-α-D-Rha*p*-(1→	^{1}H	4.96	4.16	3.99	3.69	3.83	1.34
	^{13}C	102.2	70.4	80.9	77.9	68.5	17.6

[b] assignments are only tentative
[c, d] assignments are interchangeable

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