

## Supporting Information

# Detailed structural characterization of the lipooligosaccharide from the extracellular membrane vesicles of *Shewanella vesiculosa* HM13

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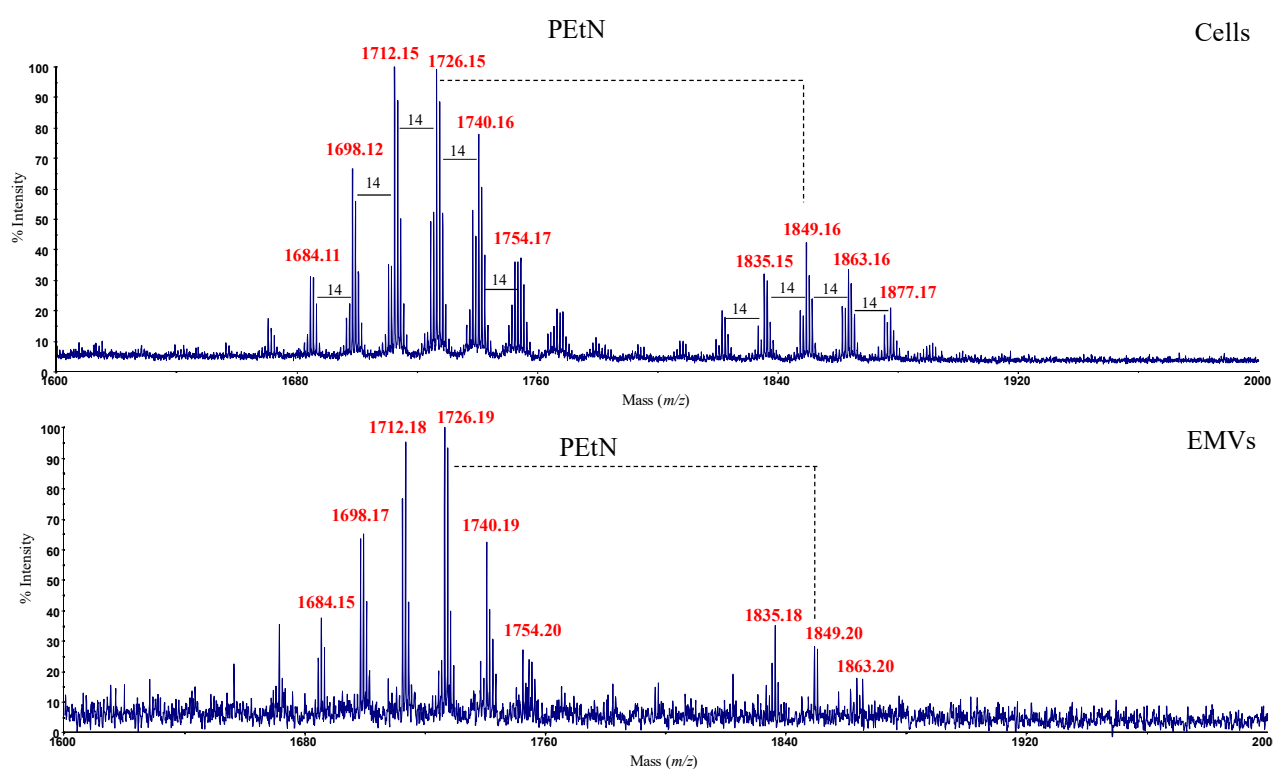
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**Table S1.** Molar ratio percentage of monosaccharide residues of the LOS from *S. vesiculosa* HM13

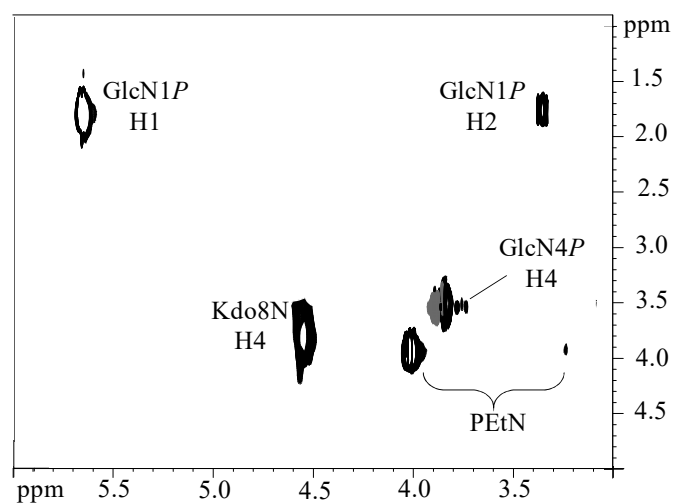
|           | Glc   | GlcN  | D,D-Hep | L,D-Hep |
|-----------|-------|-------|---------|---------|
| Tr. (min) | 19.57 | 24.75 | 26.38   | 26.60   |
| Cells     | 49.9% | 1.1%  | 16%     | 33%     |
| EMVs      | 55.7% | 1.9%  | 12.1%   | 30.3%   |

**Table S2.** Molar ratio percentage of fatty acids of the LOS from *S. vesiculosa* HM13

|           | C12:0 | C13:0 | C12:0(3-OH) | C14:0 | C13:0(3-OH) | C15:0 | C14:0(3-OH) |
|-----------|-------|-------|-------------|-------|-------------|-------|-------------|
| Tr. (min) | 6.10  | 6.89  | 7.87        | 8.53  | 8.63        | 9.26  | 10.17       |
| Cells     | 22.8% | 24%   | 10.2%       | 8%    | 23%         | 9%    | 3%          |
| EMVs      | 23.6% | 21%   | 10.8%       | 6%    | 23.6%       | 11.3% | 3.7%        |



**Figure S1.** Selected region ( $m/z$  1,600-2,000), indicating the lipid A signals, of the negative ions MALDI-TOF MS spectra of intact LOSs from the *S. vesiculosa* HM13 cells and EMVs.



**Figure S2.** Expansion of  $^1\text{H}$ - $^{31}\text{P}$  HSQC spectrum of the OS from *S. vesiculosa* EMVsLOS. The spectrum was recorded in  $\text{D}_2\text{O}$  at 298 K at 400 MHz.