

Supporting Information
for
“A hydration study of (1→4) and (1→6) linked
α-glucans by comparative 10 ns molecular dynamics
simulations and 500 MHz NMR”

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Table S1. Van der Waals radii in Ångstrøm of the different atoms for the non-bonding interaction

| | Glycam2000a^a | HGFB | CSFF |
|---------------------|---------------------------------------|-------------|-------------|
| C | 1.908 | 1.800 | 2.275 |
| O | 1.831 | 1.600 | 1.770 |
| H | 1.387 (H1) ^b 1.287 (H2) | 1.468 | 1.320 |
| O (hydroxyl) | 1.961 | 1.600 | 1.770 |
| H (hydroxyl) | 0.000 | 0.800 | 0.2245 |

^a Distances are given in Å.

^b H2= anomeric hydrogen, H1= sugar aliphatic hydrogen

Table S2. Partial charges of the methanol atoms used in this work in the three force fields (Gycam_2000a, HGFB and CSFF)

| Partial Charges^a | |
|------------------------------------|--------|
| C | 0.272 |
| O | -0.699 |
| HO | 0.409 |
| H | 0.006 |

^a Calculated using HF/6-31g* Resp0.000