**Fig**

**Fig. S1.** Standard curves used to validate the specificity of **(A, C)** glucose and **(B, D)** pentose detection reagents. Eight monosaccharides (glucose, mannose, galactose, xylose, arabinose, rhamnose, glucuronic acid, galacturonic acid) and three disaccharides (cellobiose, sucrose, trehalose) were tested. Glucose and xylose were included for reference in C and D.