A multi-purpose electrochemical biosensor based on a "green" homobifunctional cross linker coupled with PAMAM dendrimer grafted p-MWCNTs as platform: Application to detect α2,3-sialylated glycans and α2,6-sialylated glycans in human serum

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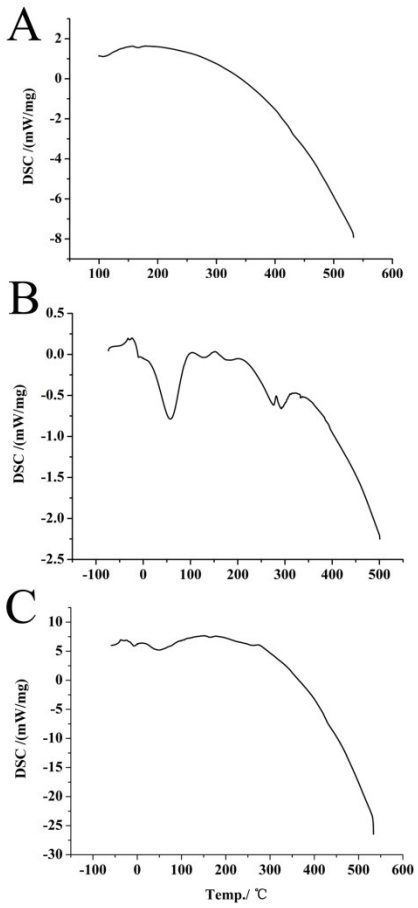

Fig S1. DSC of The p-MWCNTs (A), PAMAM (B) and p-MWCNTs-PAMAM (C).

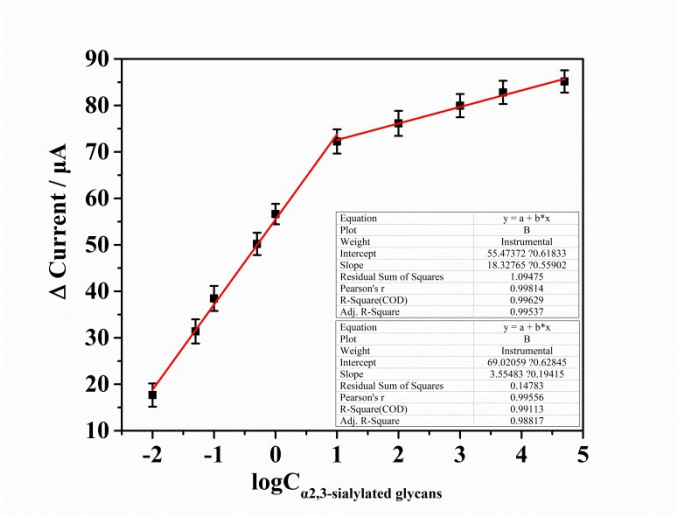

Fig S2.Calibration curve of the biosensor toward different concentration of Neu5Aca(2-3)Gal β MP Glycoside (n=5).

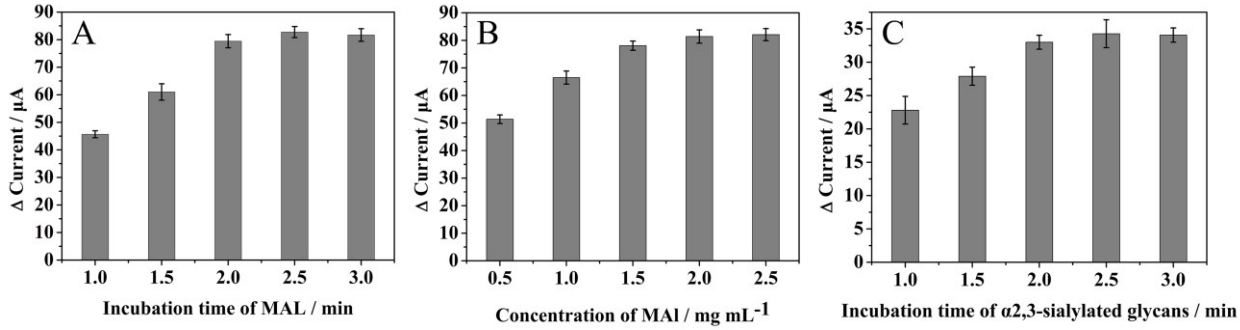

Fig S3. incubation time of SNA (A), concentration of SNA (B), recognition time of α2,6-sialylated glycans (C).

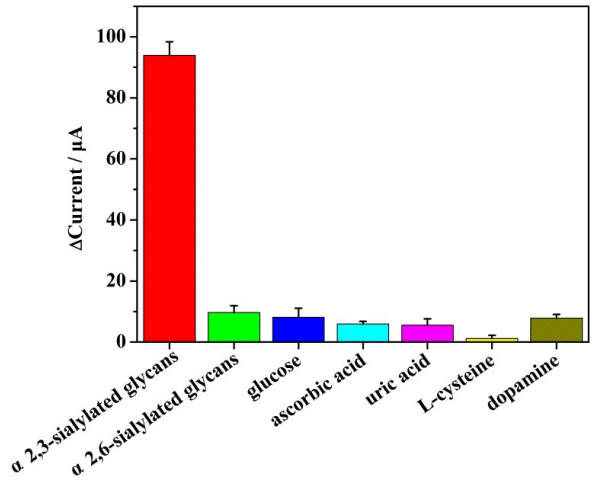

Fig S4. α2,6-sialylated glycans (50 ng mL^{-1}), α2,3-sialylated glycans (500 ng mL^{-1}), glucose (500 ng mL^{-1}), ascorbic acid (500 ng mL^{-1}), uric acid (500 ng mL^{-1}), L-cysteine (500 ng mL^{-1}) and dopamine (500 ng mL^{-1});

Tab S1. Recovery of serum samples for the electrochemical biosensor using Amperometric i-t curve analysis (n = 3).

Samples	$C_{analyte}$	Added	Found	Recovery	RSD (%)
Sample-1	NT	0.5 pg mL^{-1}	0.52 pg mL^{-1}	103.87	2.19
Sample-2	NT	5 ng mL^{-1}	5.14 ng mL^{-1}	102.17	4.76
Sample-3	NT	40 ng mL^{-1}	42.93ng mL^{-1}	107.32	2.46