



**S2 Fig. HPAEC-PAD chromatogram of SialH trans-sialylation products (zoom).** The reaction mixture obtained after 90 min of reaction by SialH at 30°C using casein glycomacropeptide (CGMP) as sialyl donor and lactose as acceptor was analysed by HPAEC-PAD and showed an unidentified peak at 9.2 min (blue). External standards of sialic acid (SA; 5.1 min), 6'-sialyllactose (6'SL; 7.7 min), and 3'-sialyllactose (3'SL; 8.2 min) were used (grey). Suspecting that the novel reaction compound was 3-sialyllactose (3SL), the reaction mixture was treated with  $\beta$ -galactosidase, which did indeed cause considerable degradation of the unidentified compound (pink).