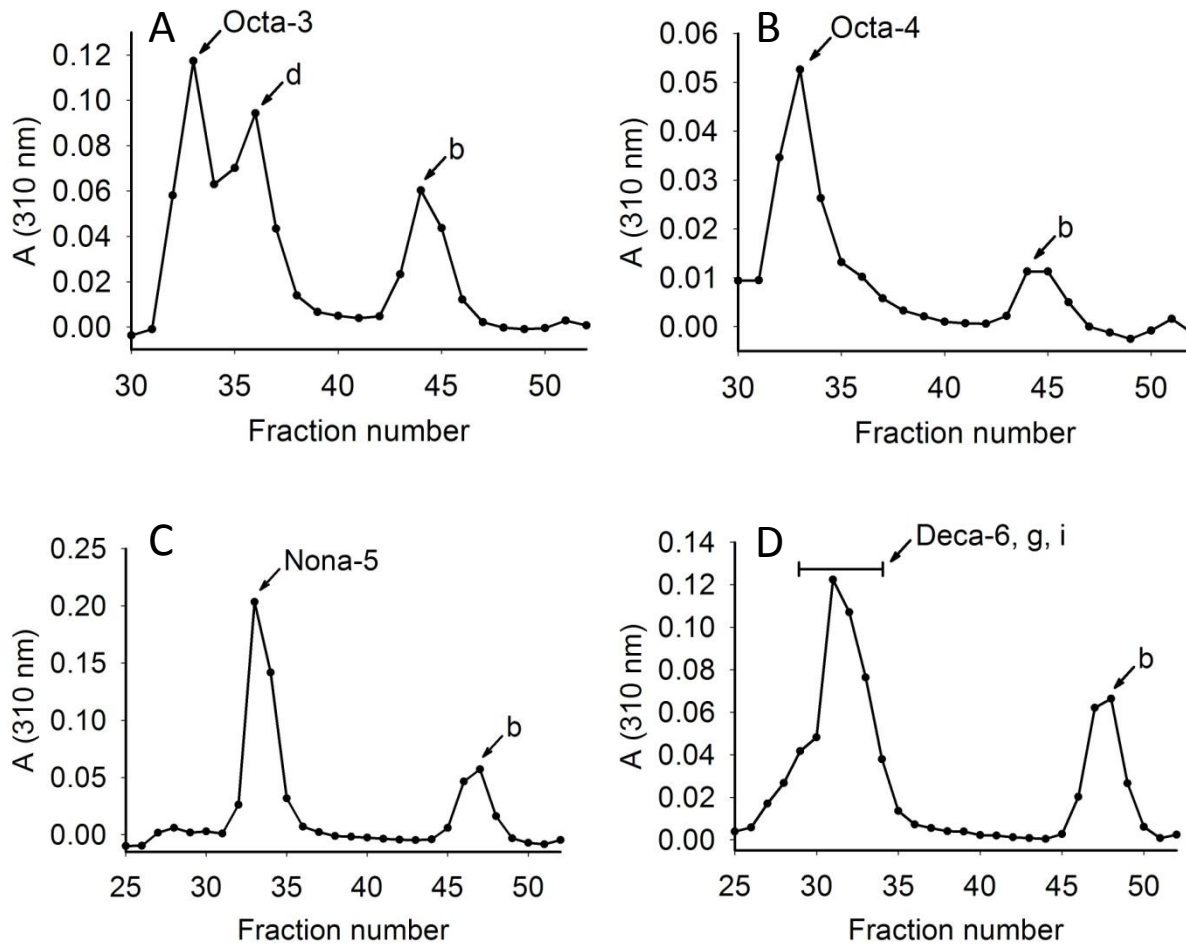


Supplementary Fig. S1. SDS-PAGE results of expression of CAA771133.1 in *E. coli*. The vector containing CAA771133.1 was transformed into *E. coli*, and the culture was divided into a control and experimental sample. Each sample followed the His₆-tagged KfIA expression protocol described in the manuscript, except the control was not treated with the inducing agent isopropyl- β -D-thiogalactopyranoside. A 65 kDa band is apparent in the induced sample cell lysate. This band is lost in the supernatant taken from the centrifugation step that follows cell lysis.

(A) ladder **(B)** non-induced sample crude cell lysate **(C)** induced sample crude cell lysate **(D)** non-induced sample, supernatant after lysis and centrifugation **(E)** induced sample, supernatant after lysis and centrifugation.



Supplementary Fig. S2. Plots of A_{310} vs. fraction number from the BioGel P-2 separation of the products from KfIA cleavage of the four oligosaccharides in Fig. 4. The A_{310} corresponds to the absorbance peak of the pNP tag. The respective substrates in the plots are (A) Octa-3 (B) Octa-4 (C) Nona-5 (D) Deca-6.