Identification of Lewis and Blood Group Carbohydrate Epitopes by Ion Mobility-Tandem-Mass Spectrometry Fingerprinting

Johanna Hofmann[†,‡], Alexandra Stuckmann[‡], Max Crispin[§], David J. Harvey[§], Kevin Pagel[†,‡,*] and Weston B. Struwe[§*]

[†]Fritz Haber Institute of the Max Planck Society, Faradayweg 4-6, 14195 Berlin, Germany.

[‡]Institut für Chemie und Biochemie, Freien Universität Berlin, Takustrasse 3, 14195 Berlin, Germany.

[§]Department of Biochemistry, Glycobiology Institute, University of Oxford, OX1 3QU, United Kingdom

*weston.struwe@bioch.ox.ac.uk (WBS) & kevin.pagel@fu-berlin.de (KP) Fax: +44 (0)1865 285445 (WBS) & +49 30 838472703 (KP)

Supporting Information

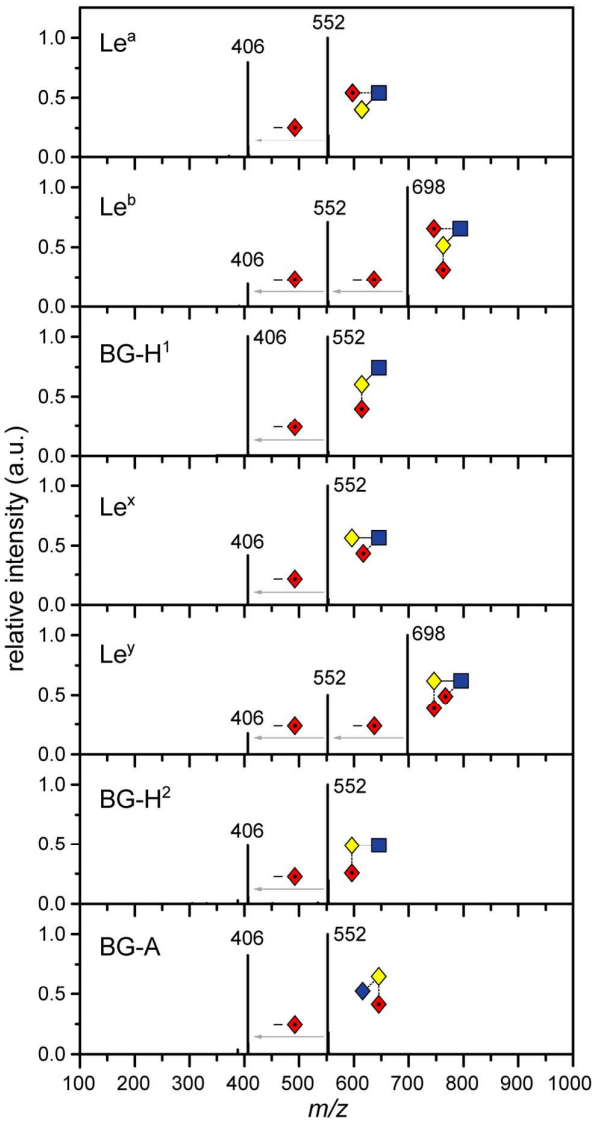

Figure S-1. Tandem MS spectra of Lewis and blood group oligosaccharides measured as $[M+Na]^+$ ions. Glycan structures are represented using the Oxford system (■ = GlcNAc, ◆ = GalNAc, ◇= Gal, ◆= Fuc).

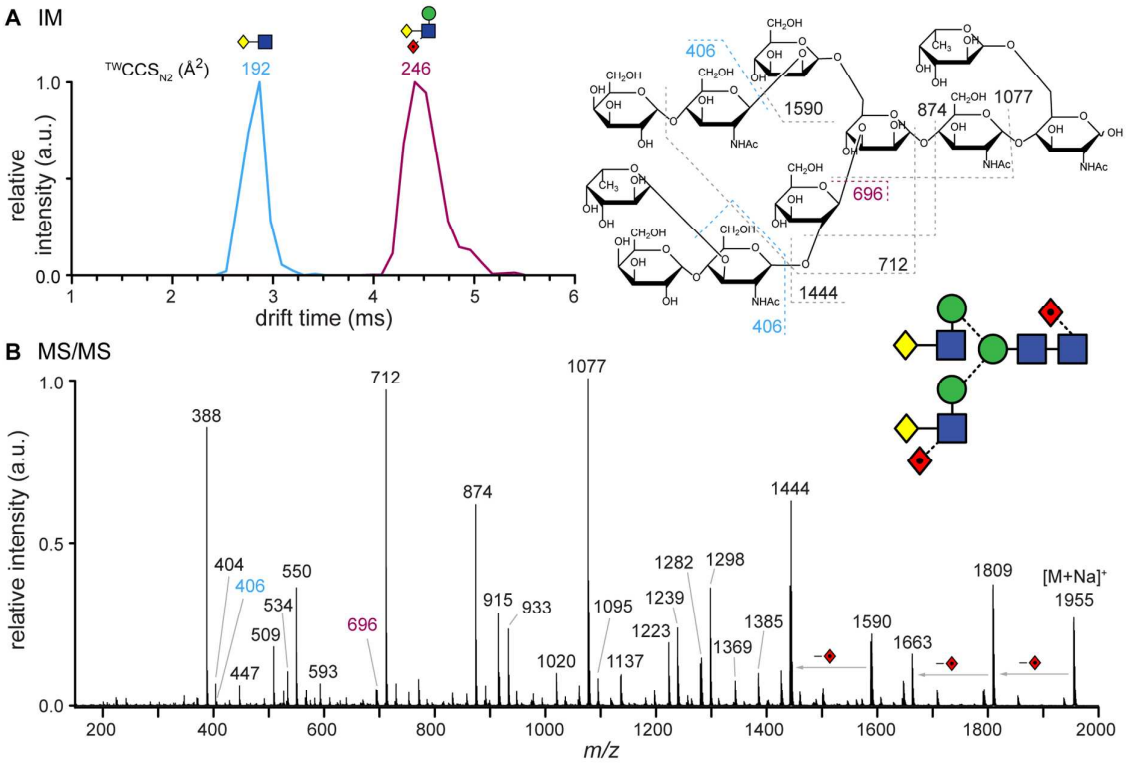

Figure S-2. IM-MS/MS of the 1955 *m/z* $[M+Na]^+$ N-glycan from human parotid gland with ATD and CCSs (A) of diagnostic fragments (B) shown. Cartoon representation of the known structure and fragment assignments of the major ions are illustrated. Glycan structures are represented using the Oxford system (■ =GlcNAc, ● = Man, ◆=Gal, ◆=Fuc).