

SUPPLEMENTAL MATERIAL

Distribution of the *O*-acetyl groups and β -galactofuranose units in galactoxylomannans of the opportunistic fungus *Cryptococcus neoformans*

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Figure S1: Ion-exchange chromatography of GalXMs from *C. neoformans* serotype D (CAP 67 strain) on a Mono-Q column. Each fraction was monitored for carbohydrates by phenol-sulfuric acid assay (filled circle). NGALXM was eluted with 10mM of sodium phosphate buffer, and GXMGal was eluted with a linear gradient of 0-0.5M of NaCl. The fractions marked with a bar were pooled. The concentration of NaCl is represented as a dashed line.

Figure S2: Estimation of apparent molecular weight of NGalXM (A) and GXMGal (B) from *C. neoformans* by gel filtration chromatography on TSK 4000 (7.5 x 600 mm) column, linked to an HPLC system. The column was eluted with 50 mM sodium phosphate buffer containing 0.3M NaCl at flow rate of 1.0 ml/min. The numbers inside the panel indicate the molecular weight of standard proteins, NGalXM and GXMG in kDa. The elution volume of standard proteins were indicated by arrows.

Figure S3: ^1H - ^{13}C HSQC spectrum of NGalXM from *C. neoformans* (CH₃, CH black, CH₂ grey). The cross-peaks are labelled as they appear in the text and in Table II. An arrow indicates O-acetyl signals. Insert represents the expansion of selected cross-peaks of HSQC spectrum showing $^1J_{\text{H,C}}$ correlation methyl group arising from O-acetyl resonances. Signals marked with * and ** arise from methyl and methylene groups from non-identified compounds respectively.

Figure S4: ^1H - ^{13}C HSQC spectrum of GXMGal from *C. neoformans* (CH₃, CH black, CH₂ grey). The cross-peaks are labelled as they appear in the text and in table III. An arrow indicates O-acetyl signals. Insert represent the expansion of selected cross peaks of HSQC spectrum showing $^1J_{\text{H,C}}$ correlation methyl group arising from O-acetyl resonances.

Figure S5: Expansion of selected cross-peaks of NOESY spectrum of NGalXM from *C. neoformans*. The arrow indicates nOe contacts between –CH₃ group of O-acetyl group with the H-2 and H-1 of Man A residue.

Figure S6: Part of NOESY spectrum of NGalXM from *C. neoformans*. The cross-peaks are labelled as they appear in the text. The arrow indicates cross peak between β-Galf (L) H-1 and α-Galp (M) H-1 (L1:M1).

Figure S7: Anomeric region of ¹H-¹³C HSQC spectrum of GalM from *C. neoformans*. The cross peaks are labelled as they appear in the text and in Table VI.

Figure S8: Overlap of parts of the TOCSY (black), and NOESY (red) spectra of GXMGal from *C. neoformans*. The cross-peaks are labelled as they are mentioned in the text.

Figure S9: Expansion of selected cross-peaks of NOESY spectrum of GXMGal from *C. neoformans*. The dashed arrow indicates nOe contacts between the protons of -CH₃ group of O-acetyl with the H2 and H1 of 2-O-acetylated Man A residue; and the solid arrow indicates nOe contacts between the protons of –CH₃ group of O-acetyl with H1 and H6,6' of 6-O-acetylated Man A* residue.

FIGURE S1

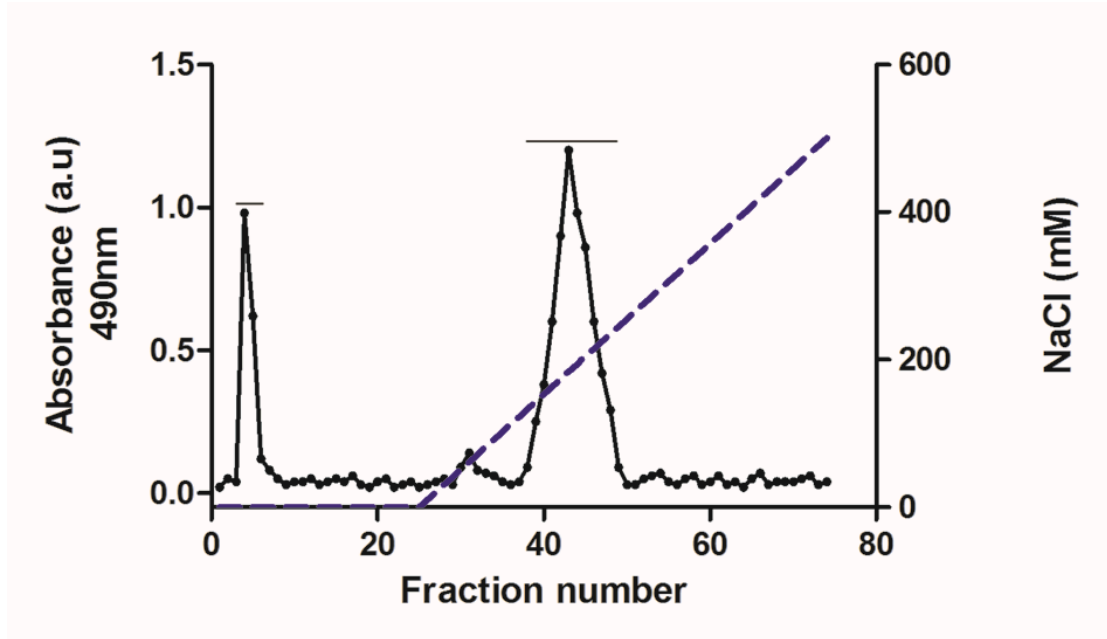


FIGURE S2

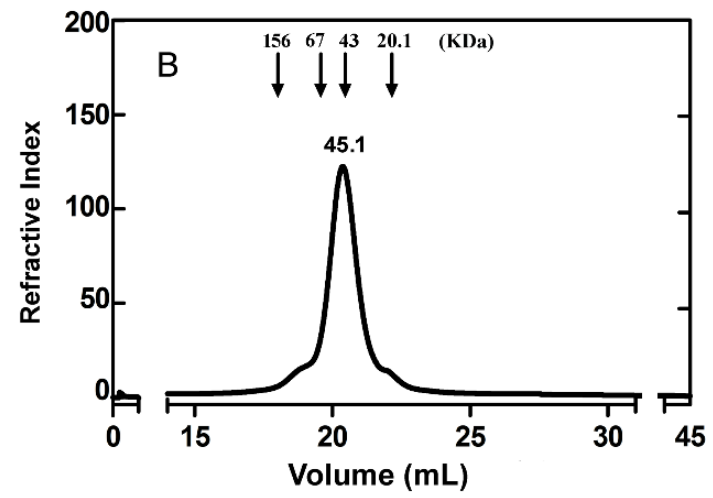
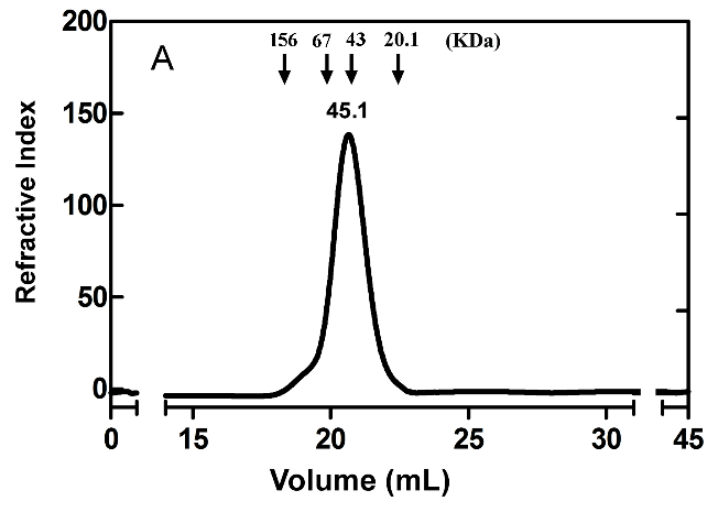


FIGURE S3

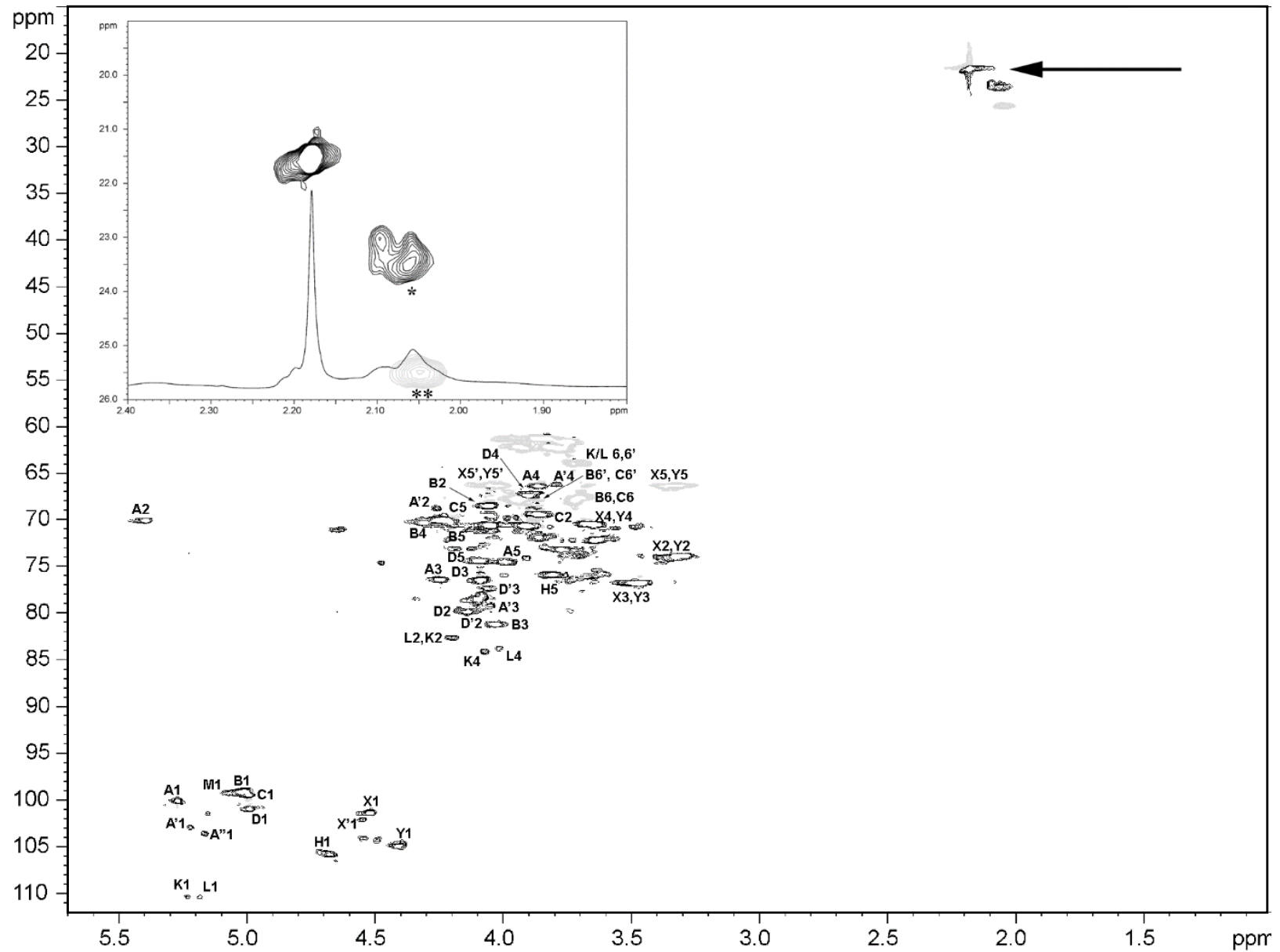


FIGURE S4

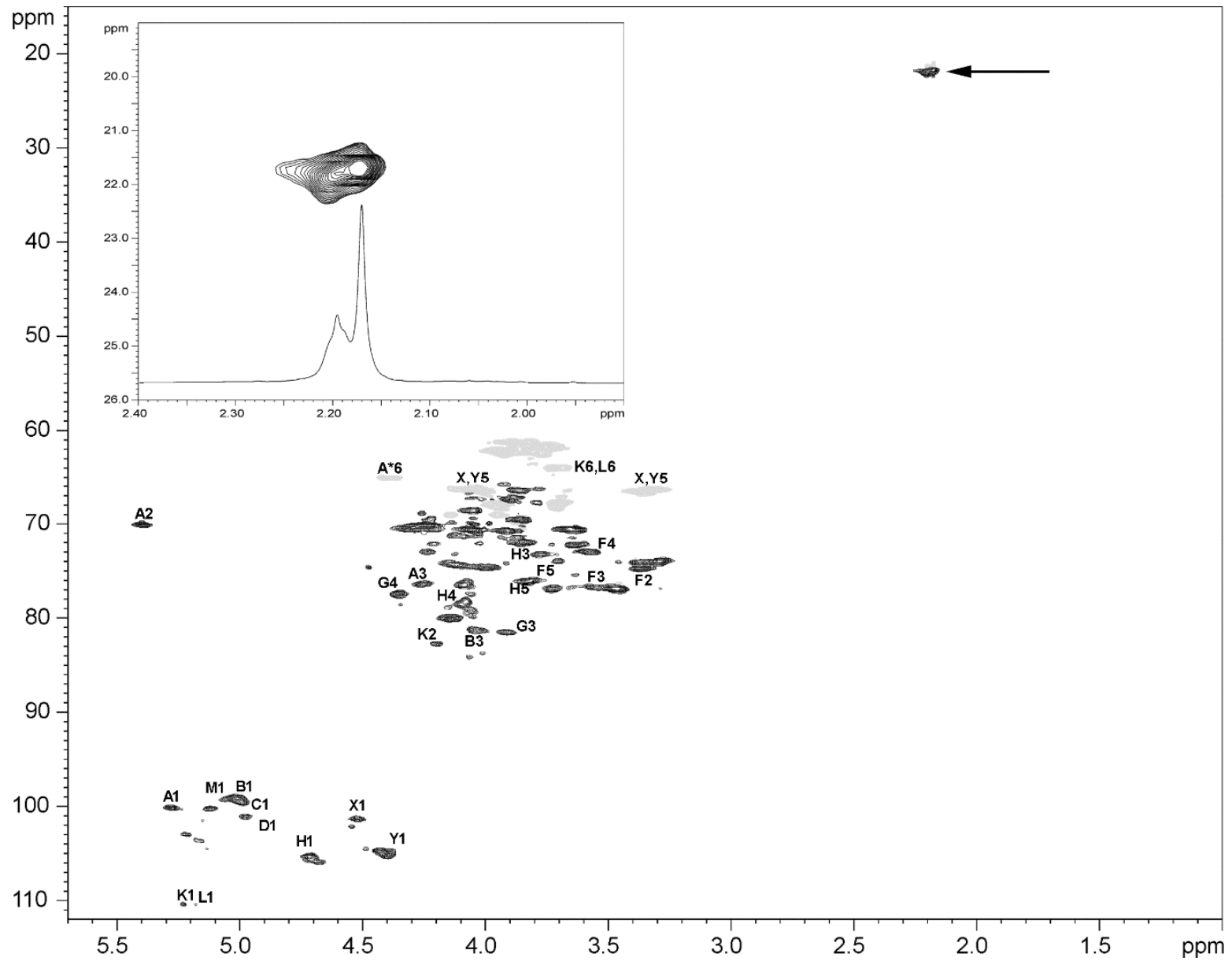


FIGURE S5

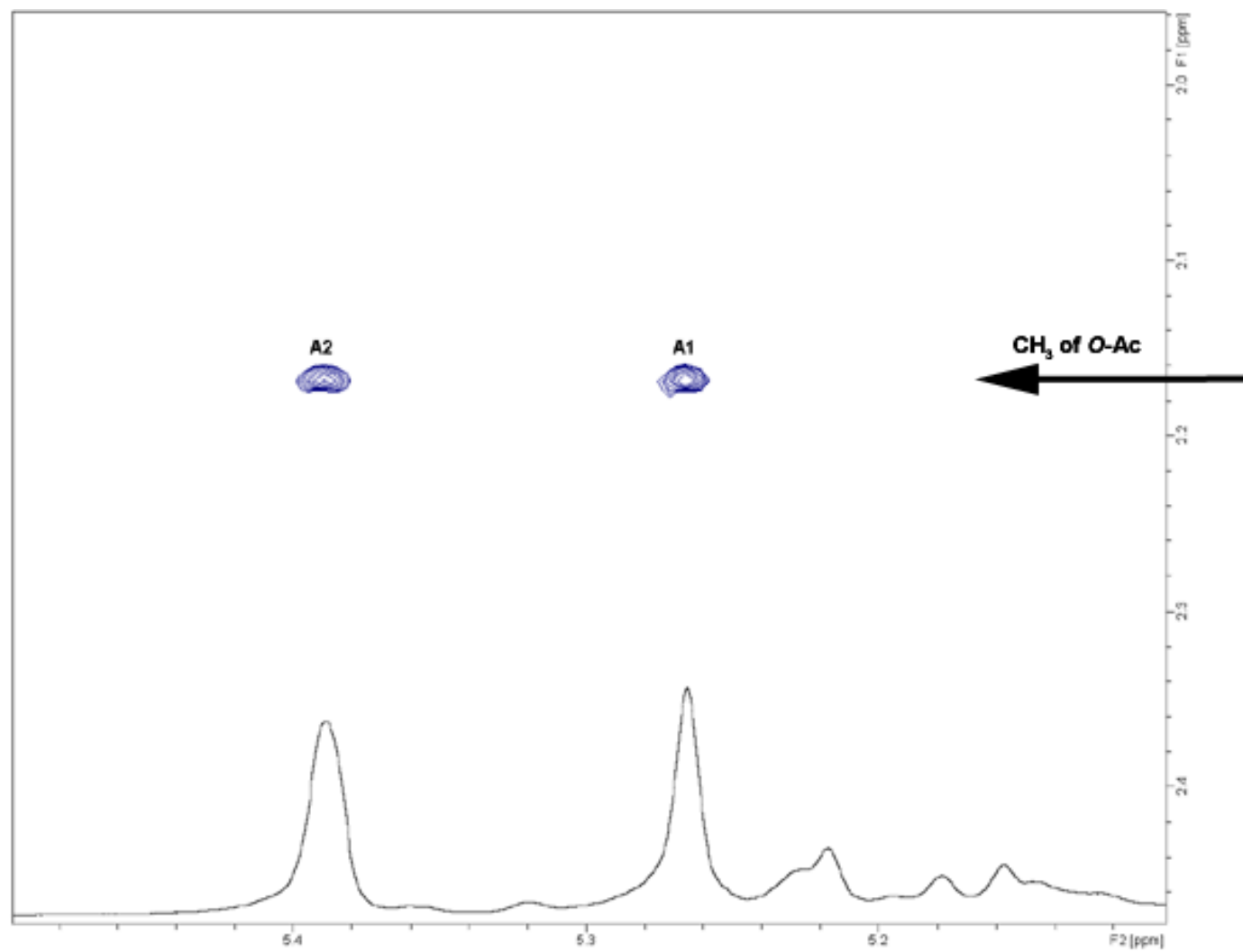


FIGURE S6

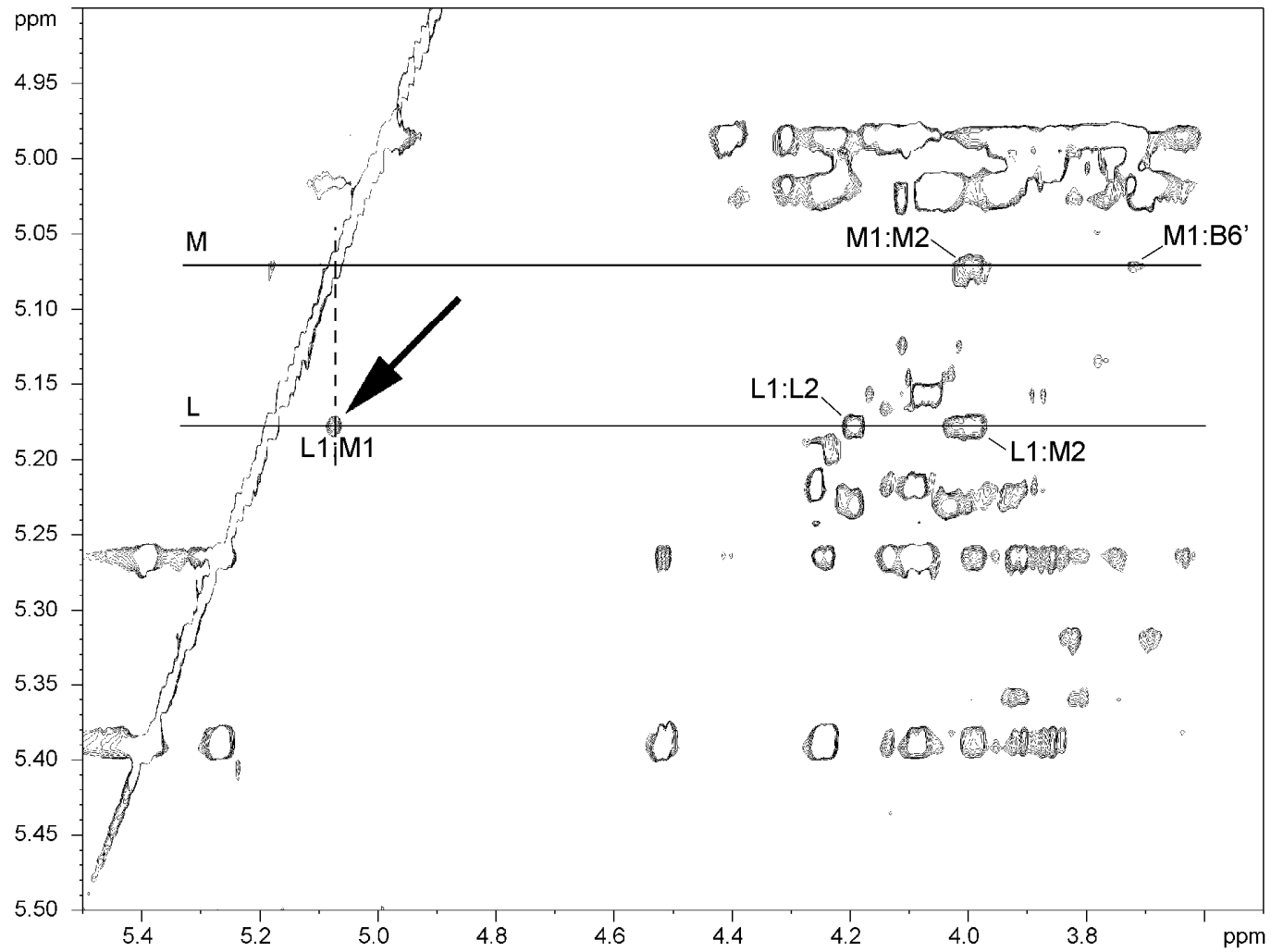


FIGURE S7

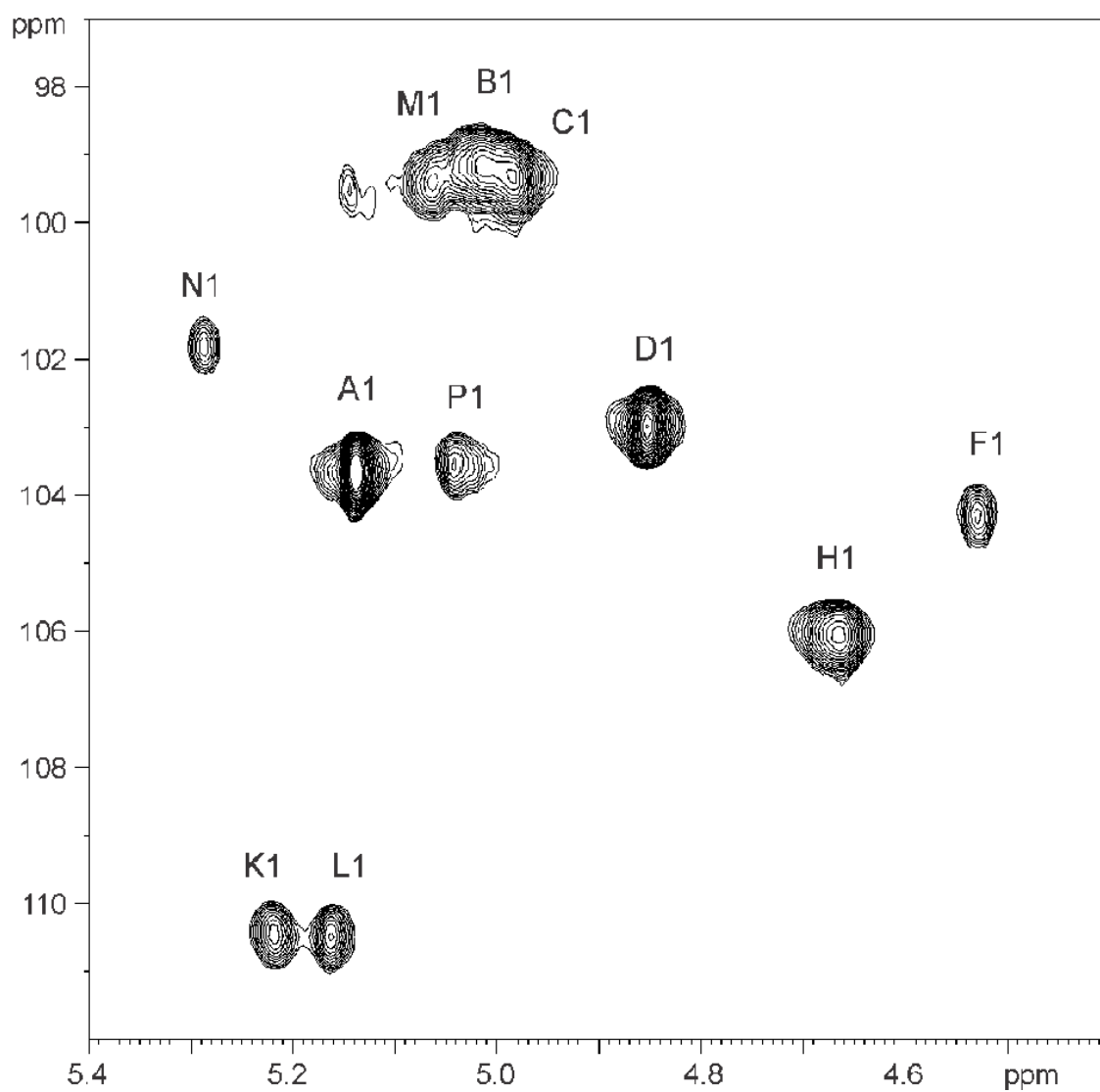


FIGURE S8

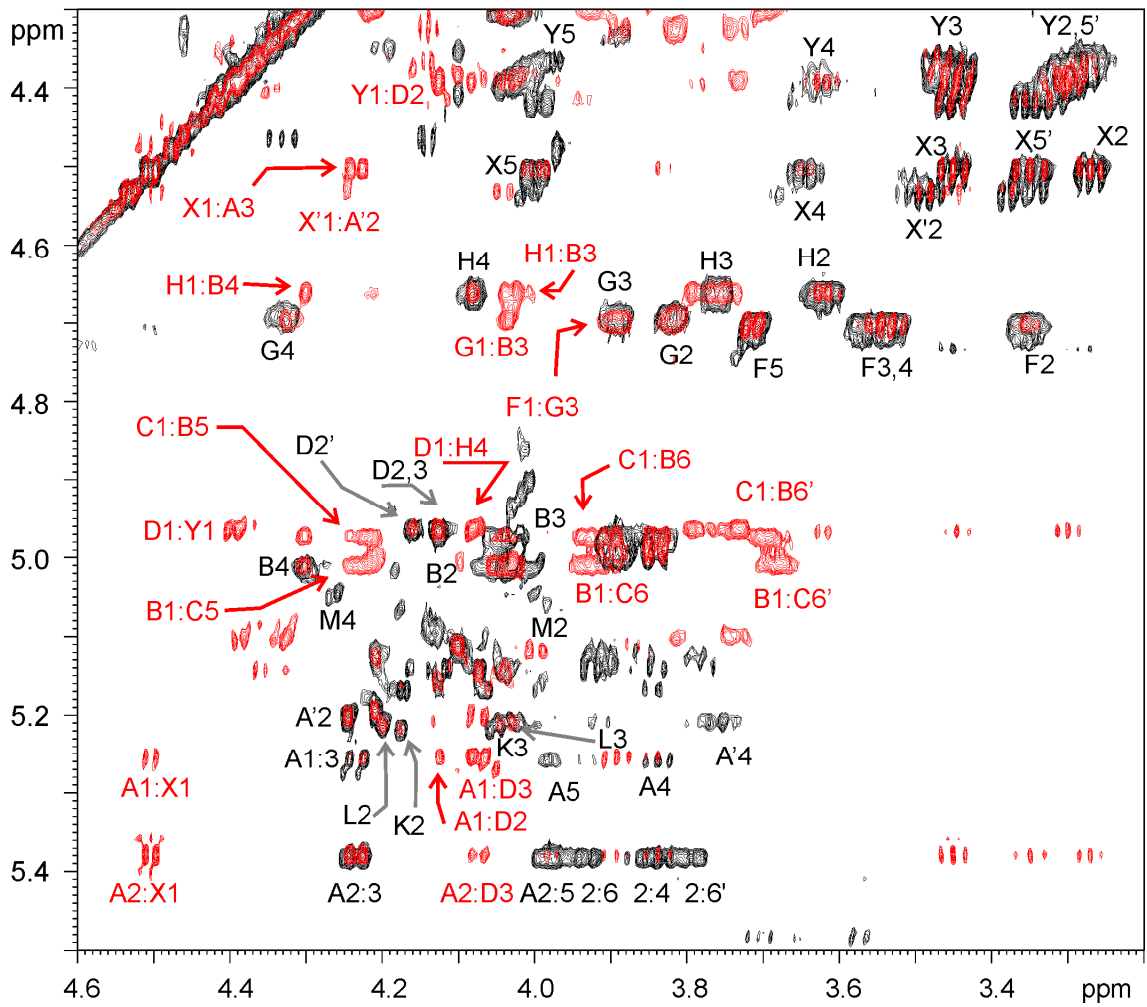


FIGURE S9

