

SUPPLEMENTARY TABLE AND FIGURES

Jinghua Yang, Nirav Y. Shelat, C. Allen Bush and John O. Cisar, Structure and Molecular Characterization of *Streptococcus pneumoniae* Capsular Polysaccharide 10F by Carbohydrate Engineering in *Streptococcus oralis*

Table S1. PCR primer pairs used for cloning genes from strains of *S. pneumoniae* in pJY

Primer pair (5'-3') ^a	Gene	Strain	Plasmid
GATAGGATCCCTTTGTCTATCCTGTGCAGTTGGTG GCTAGAATTCCCGCTCCACCAATTTACTTAGATTATATC	<i>wcrB</i>	34355	pJY-11
TATACCTAGGTACCTGTAGTTGAAGATAGGGAATCAC CATTCCATGGGTCAATAAACACTCTTGCATCTTGTCTC	<i>wcrF</i>	34355	pJY-12
CTTTGGATCCAAGACTATTTGGACGTGTTAGTGAGC AATAGAATTCCGGTAGATAGTCCCATATAATCCTCC	<i>wzy</i>	34355	pJY-13
CGTGCCTAGGATGTGGTAGAAGAAGAACTAGGGAG GCTACCATGGACTTGAAATTTAGCATTCTTACTTCAATTTAG	<i>wcrH</i>	34355	pJY-14
AGATGCGGCCGCTGGTTATCTGATAGATTGTTATGATACCG CTAAGCGCGCTTCTAAATTCCTCTCTCTTTTCTTTCTT	<i>wcrD</i>	ATCC 8334	pJY-15

^aRestriction sites used for cloning in pJY are underlined.

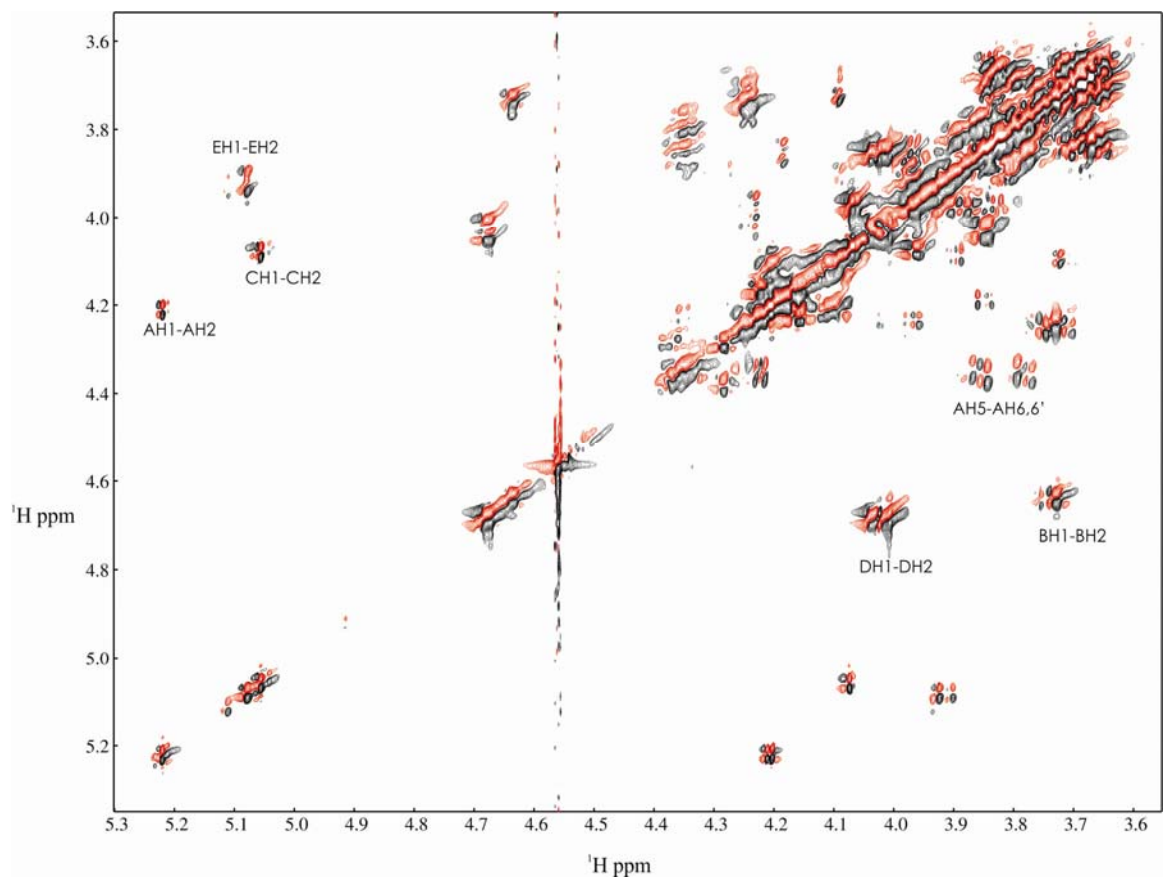


Fig. S1. COSY spectrum of *S. pneumoniae* 34355 CPS10F at 45°C

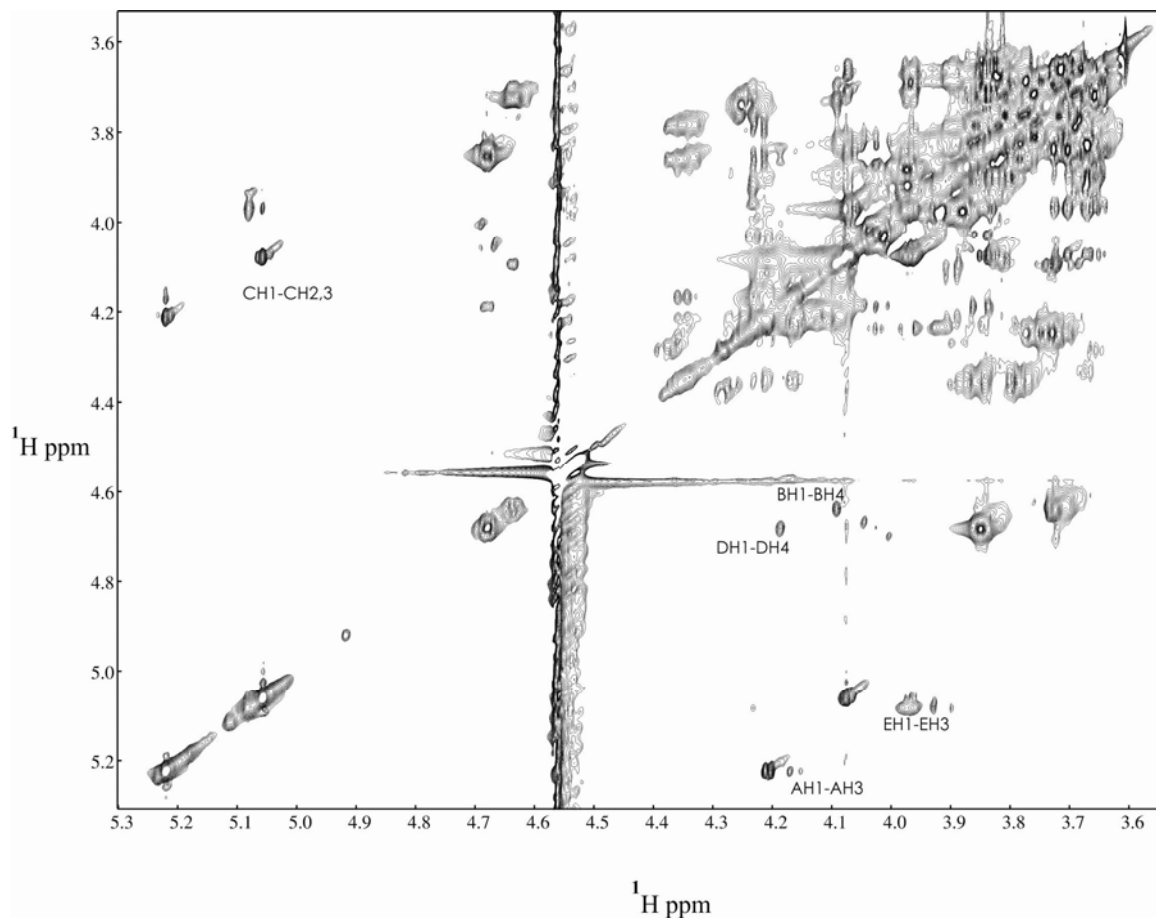


Fig. S2. TOCSY spectrum of *S. pneumoniae* 34355 CPS10F at 45°C

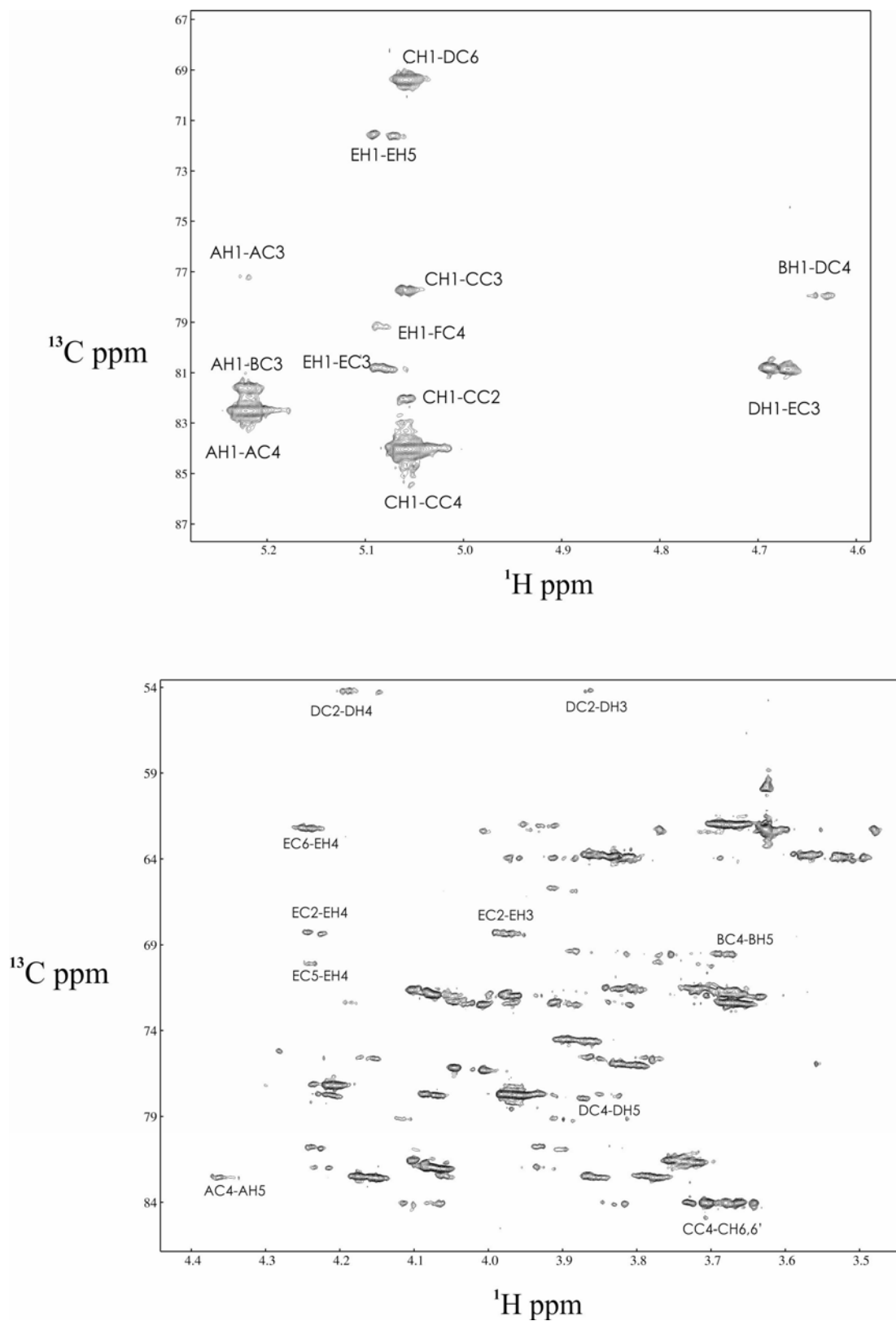


Fig. S3. Anomeric region (upper panel) and central region (lower panel) of the HMBC spectrum of *S. pneumoniae* 34355 CPS10F at 45°C

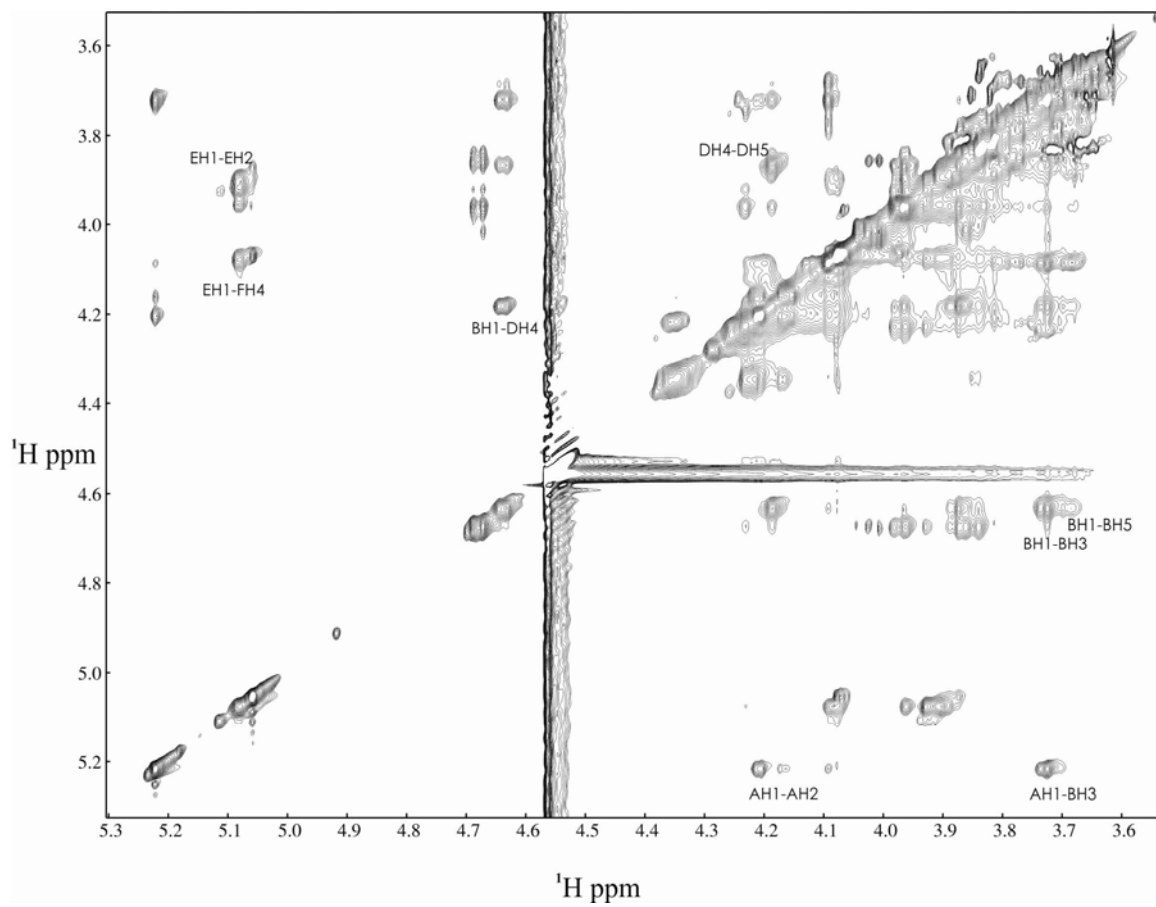


Fig. S4. NOESY spectrum of *S. pneumoniae* 34355 CPS10F at 45°C

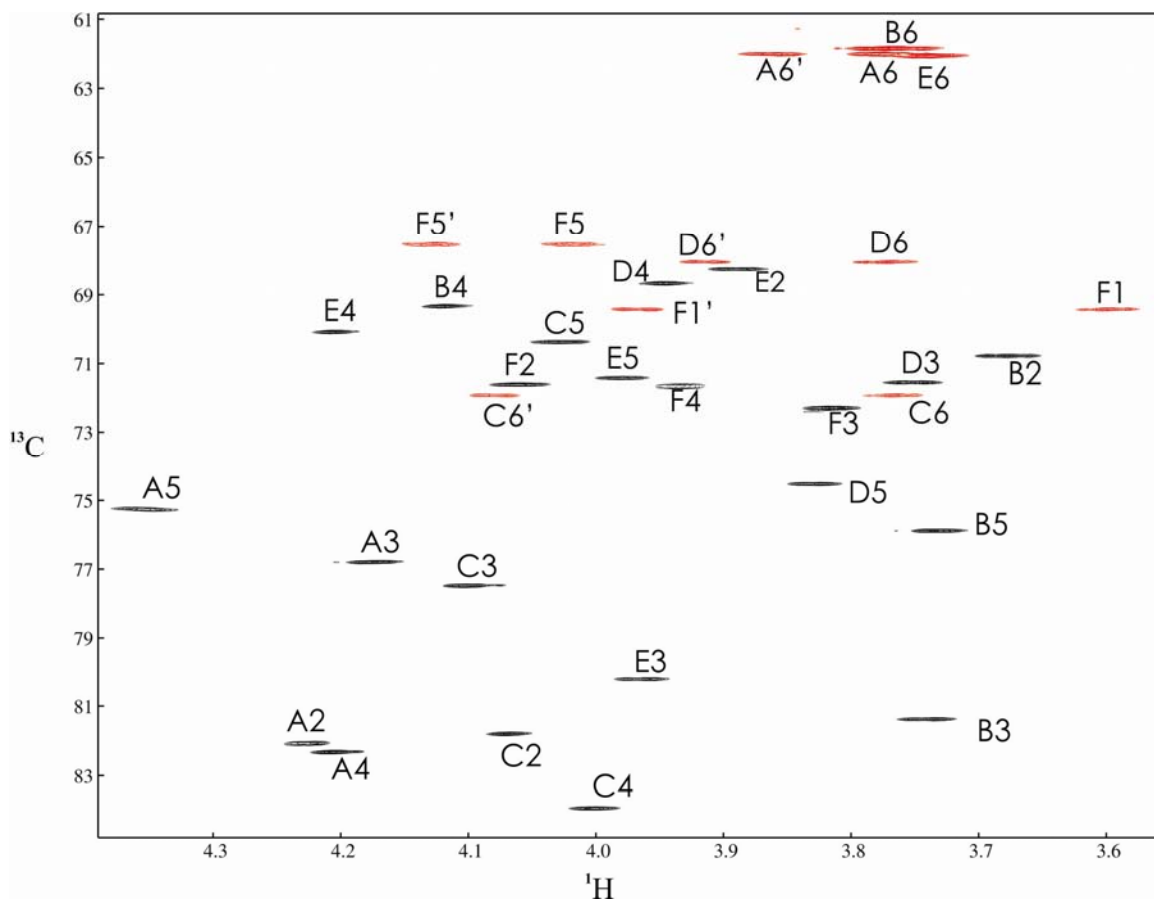


Fig. S5. Central region of the multiplicity-edited HSQC spectrum of *S. oralis* YC7(pJY-11) polysaccharide at 25°C. Negative contours (red) indicate methylene groups.

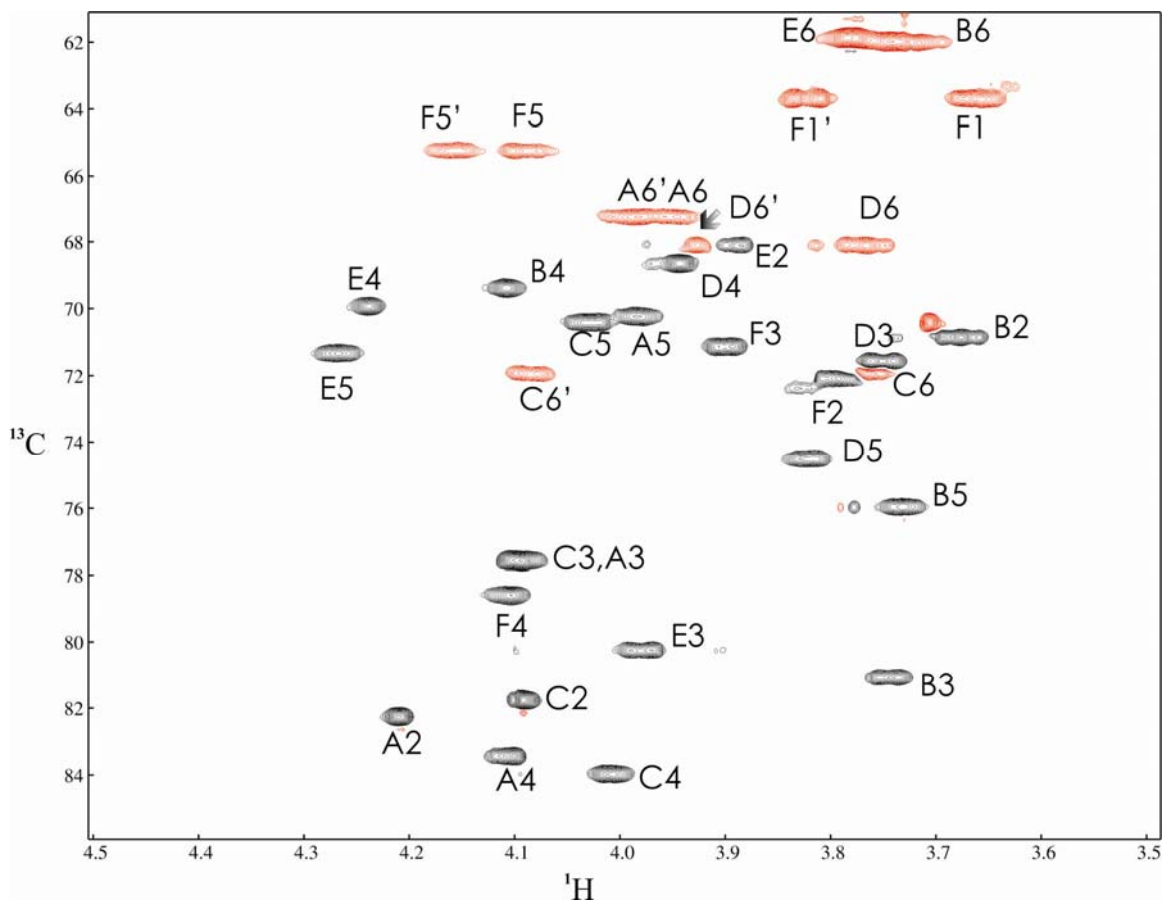


Fig. S6. Central region of the multiplicity-edited HSQC spectrum of *S. oralis* YC1(pJY-12) polysaccharide at 25°C. Negative contours (red) indicate methylene groups.

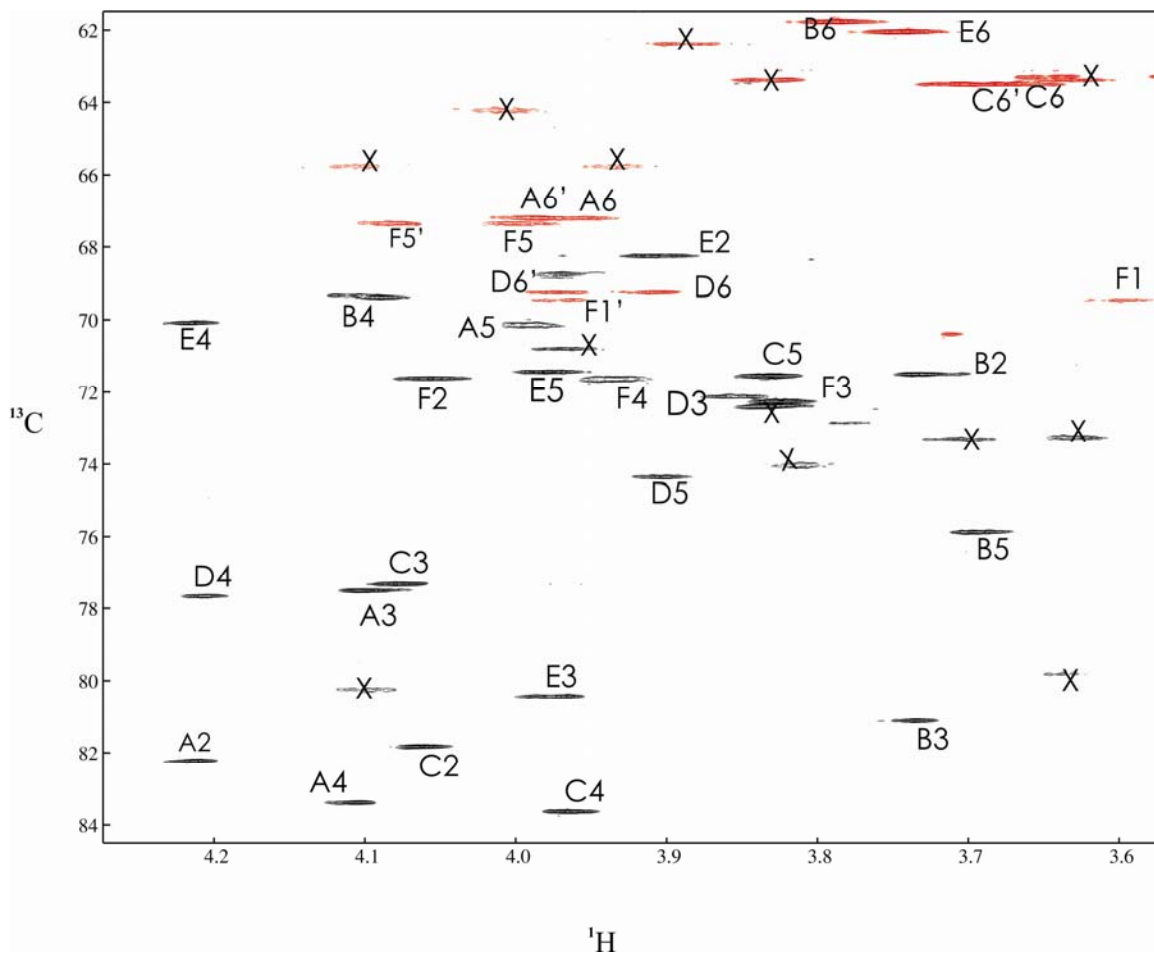


Fig. S7. Central region of the multiplicity-edited HSQC spectrum of *S. oralis* YC8(pJY-13) polysaccharide at 25°C. Negative contours (red) indicate methylene groups. "X" indicates unassigned peaks associated with impurities.

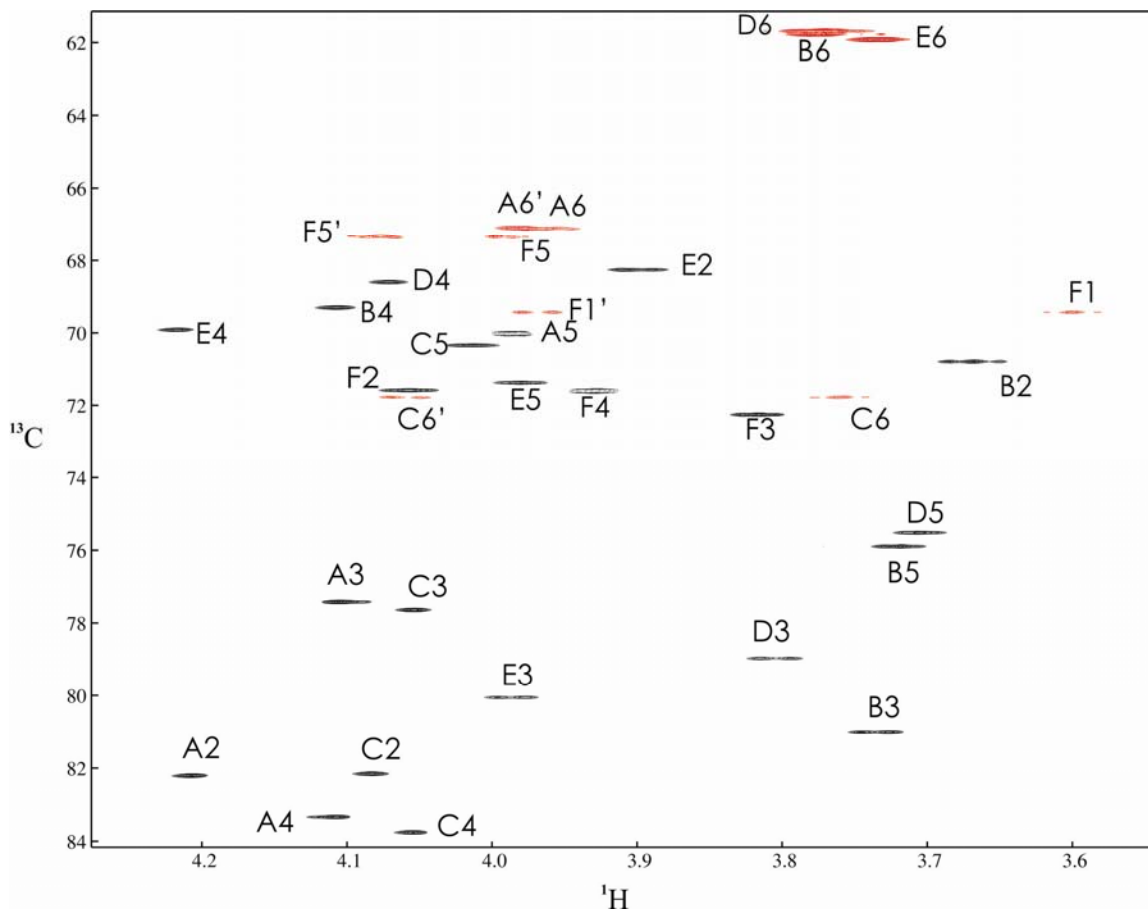


Fig. S8. Central region of the multiplicity-edited HSQC spectrum of *S. oralis* YC6(pJY-15) polysaccharide at 25°C. Negative contours (red) indicate methylene groups.