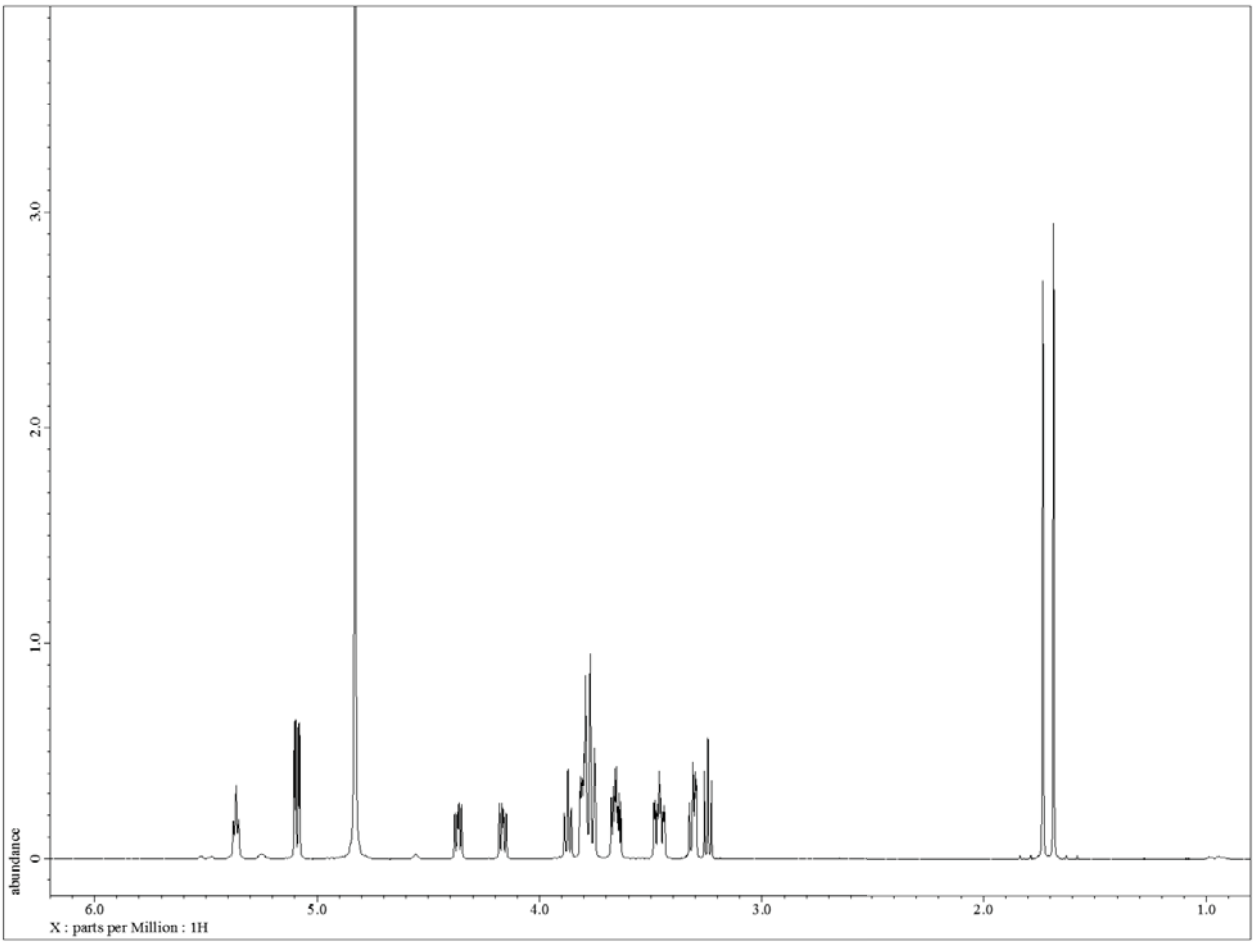
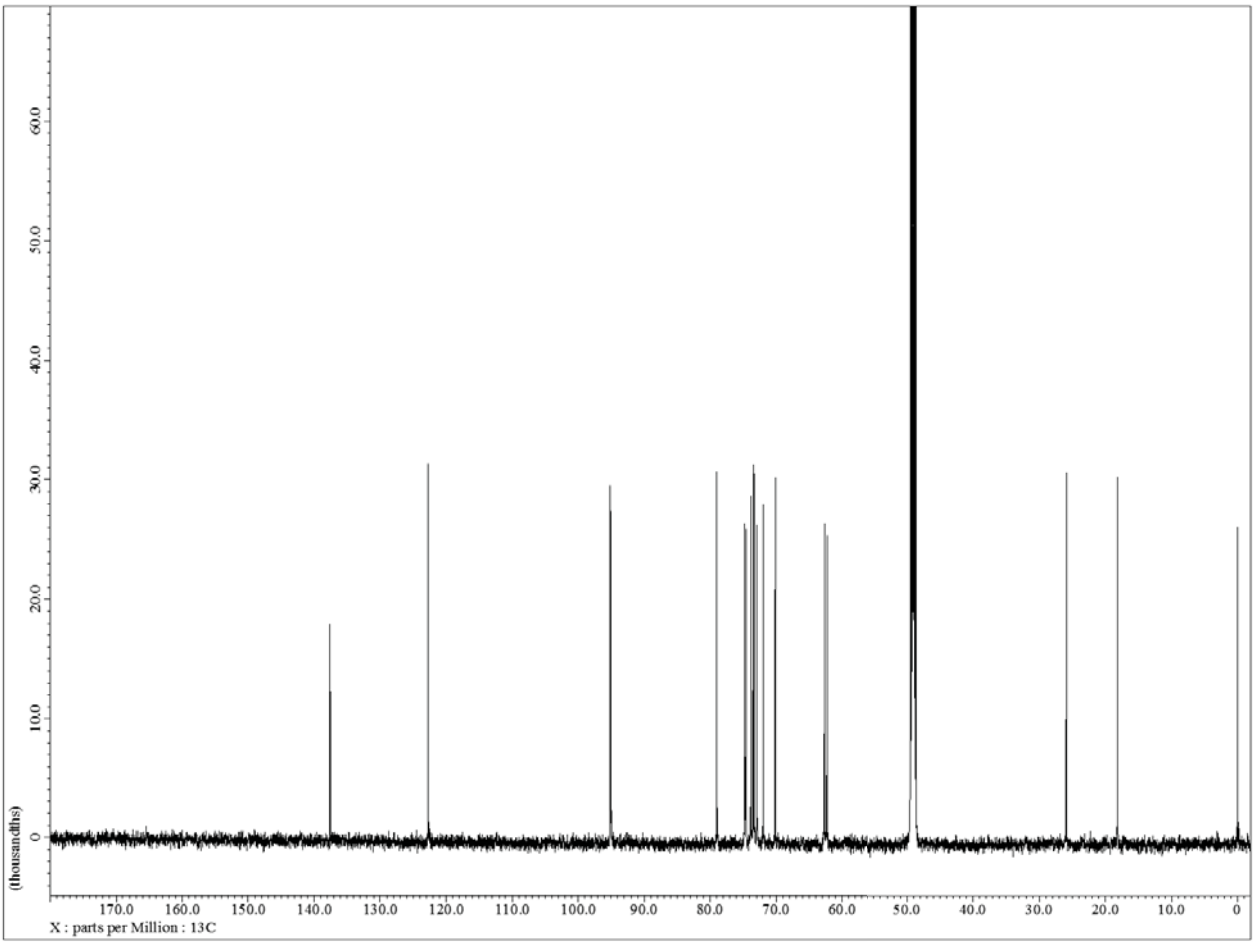
Supplementary Figure 1

^{1}H NMR spectrum of lentztrehalose B in CD_3OD



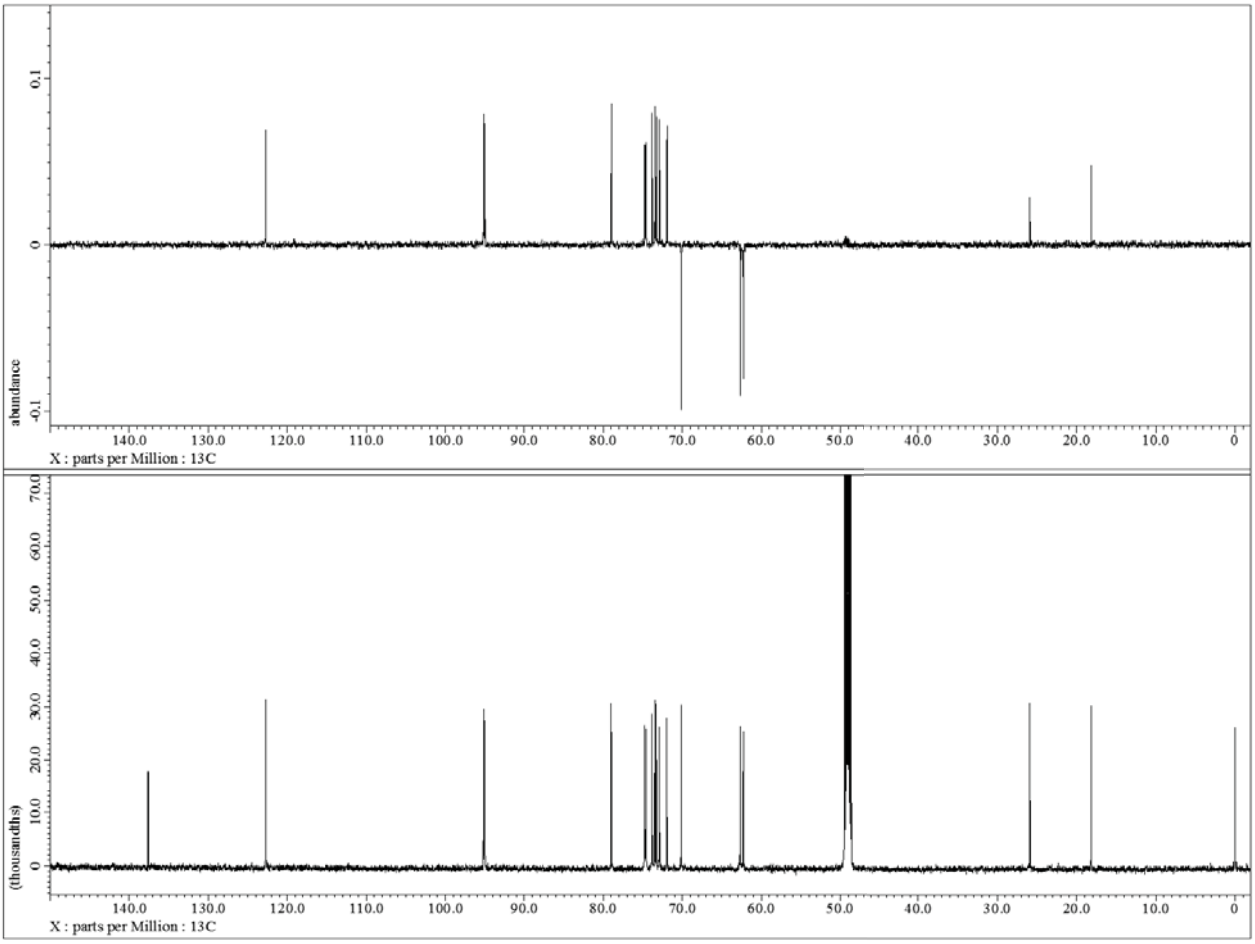
Supplementary Figure 2

^{13}C NMR spectrum of lentztrehalose B in CD_3OD



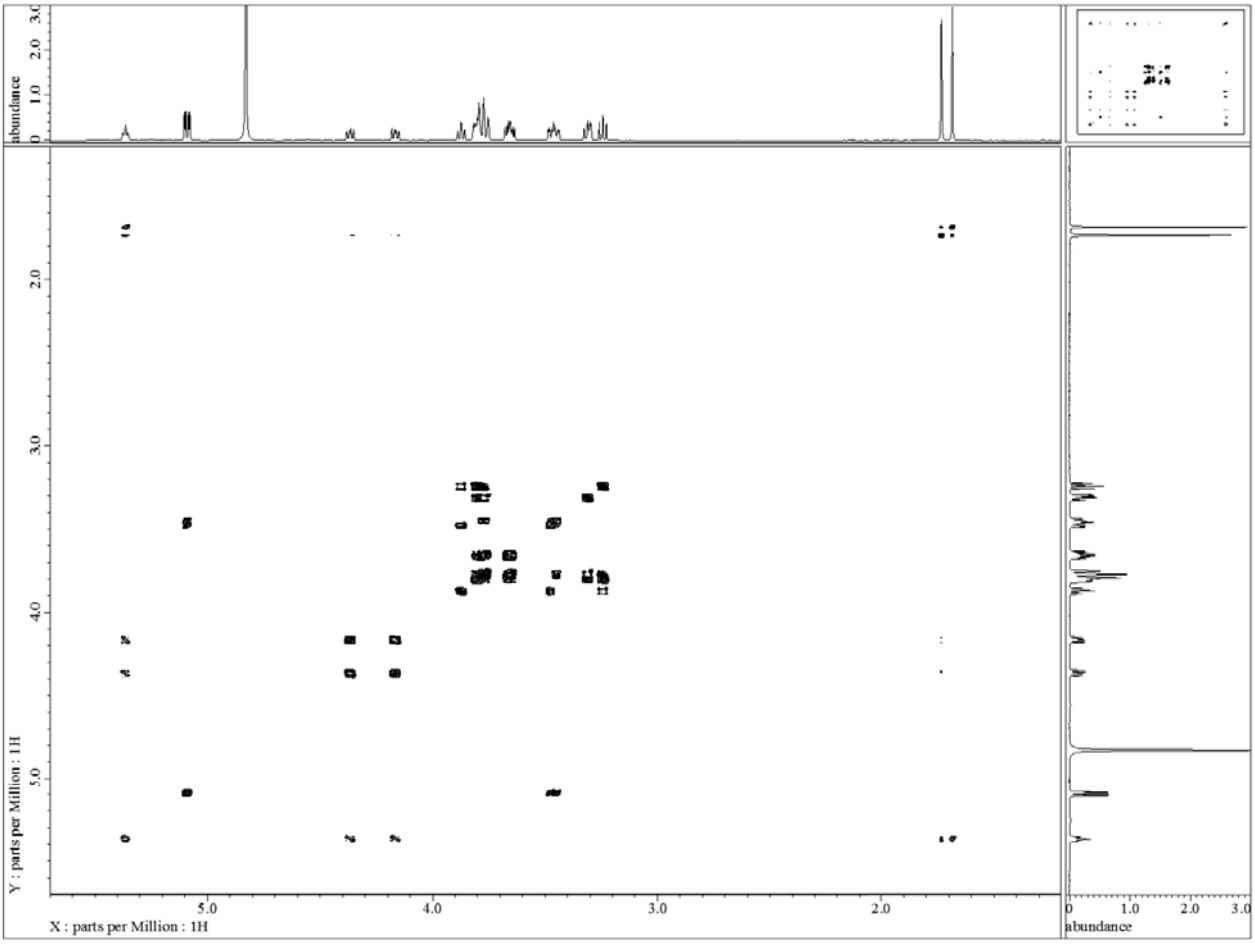
Supplementary Figure 3

DEPT135 spectrum of lentztrehalose B in CD_3OD



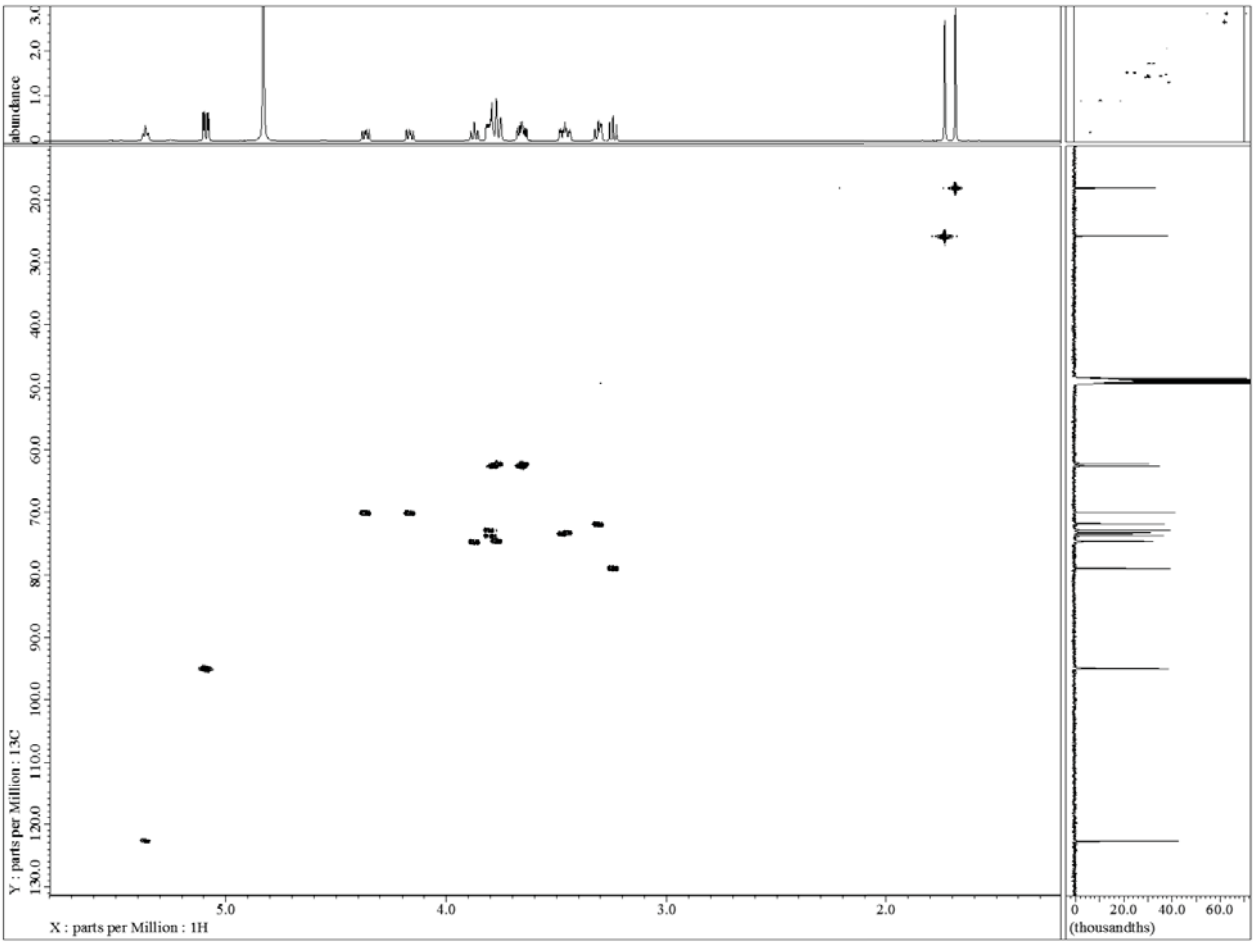
Supplementary Figure 4

^{1}H COSY spectrum of lentztrehalose B in CD_3OD



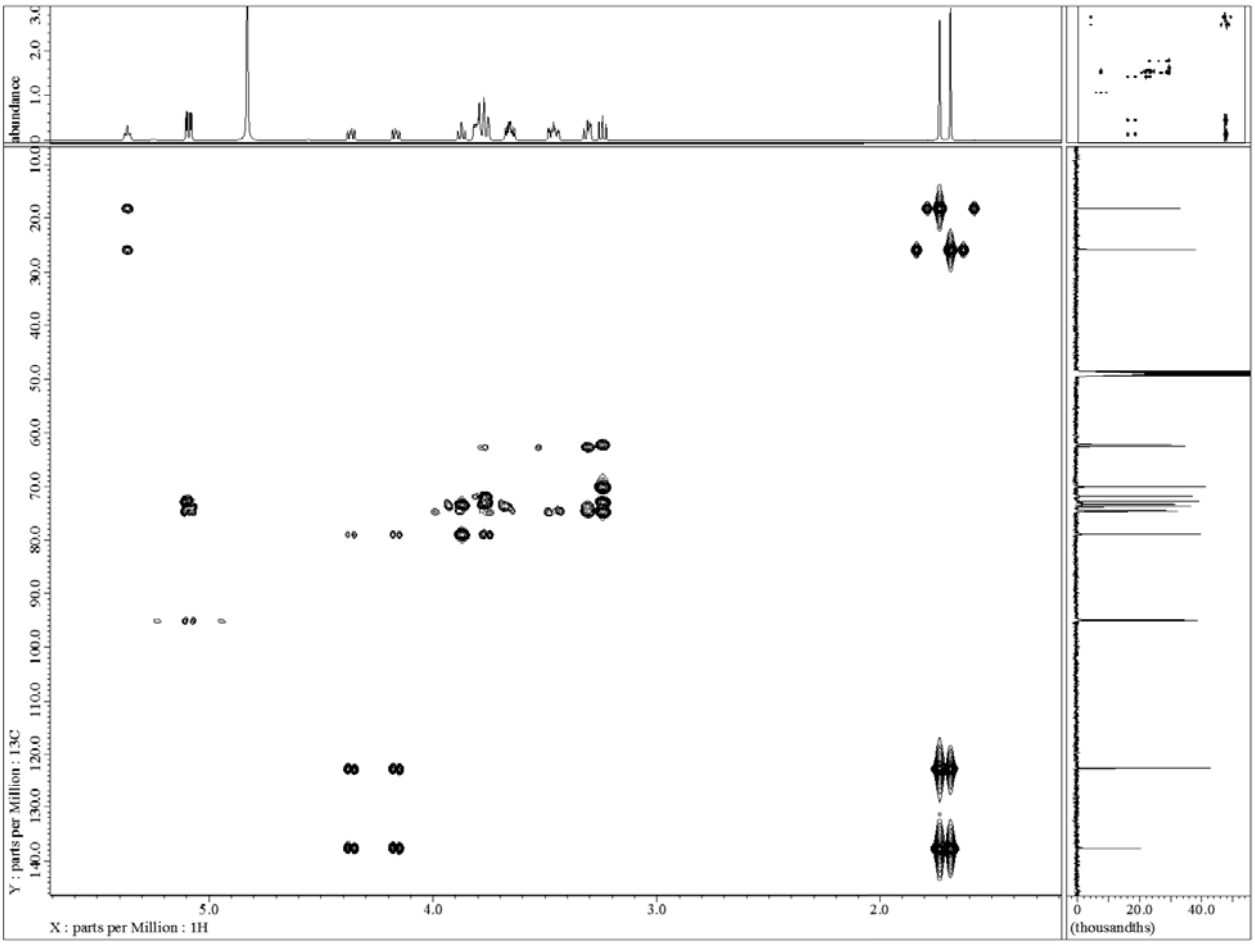
Supplementary Figure 5

^{1}H- ^{13}C HMQC spectrum of lentztrehalose B in CD_3OD



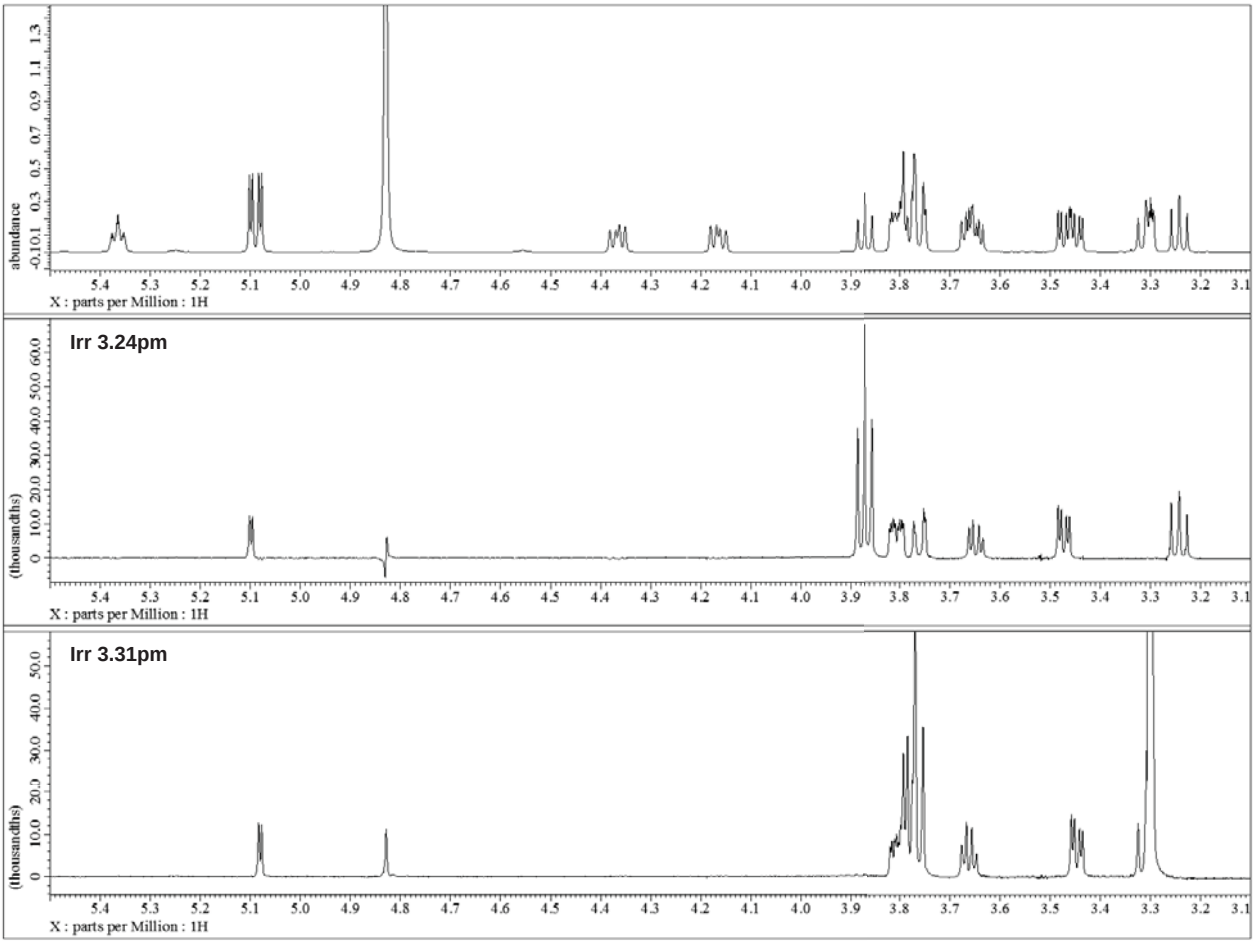
Supplementary Figure 6

^{1}H- ^{13}C HMBC spectrum of lentztrehalose B in CD_3OD



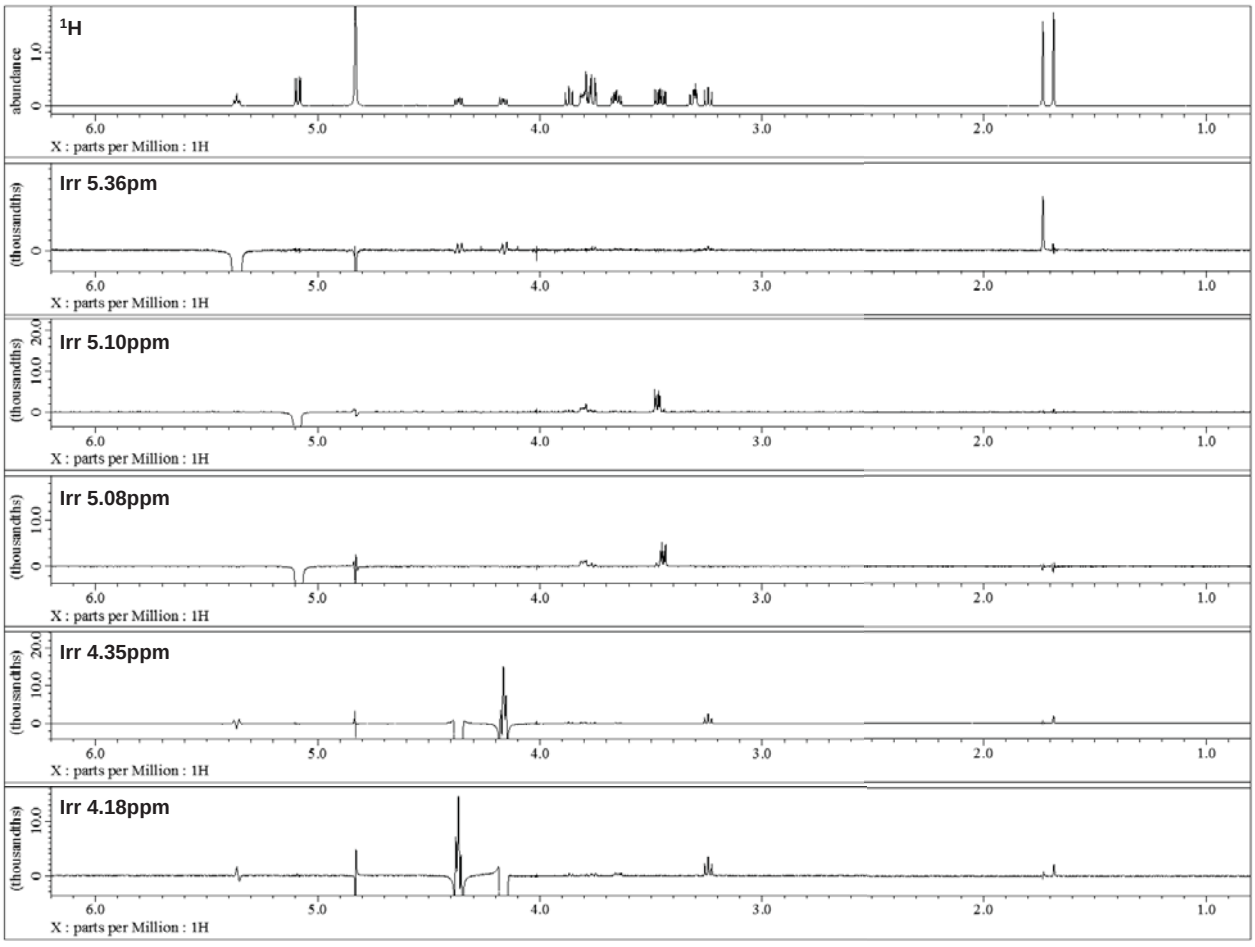
Supplementary Figure 7

1D TOCSY spectra of lentztrehalose B in CD_3OD



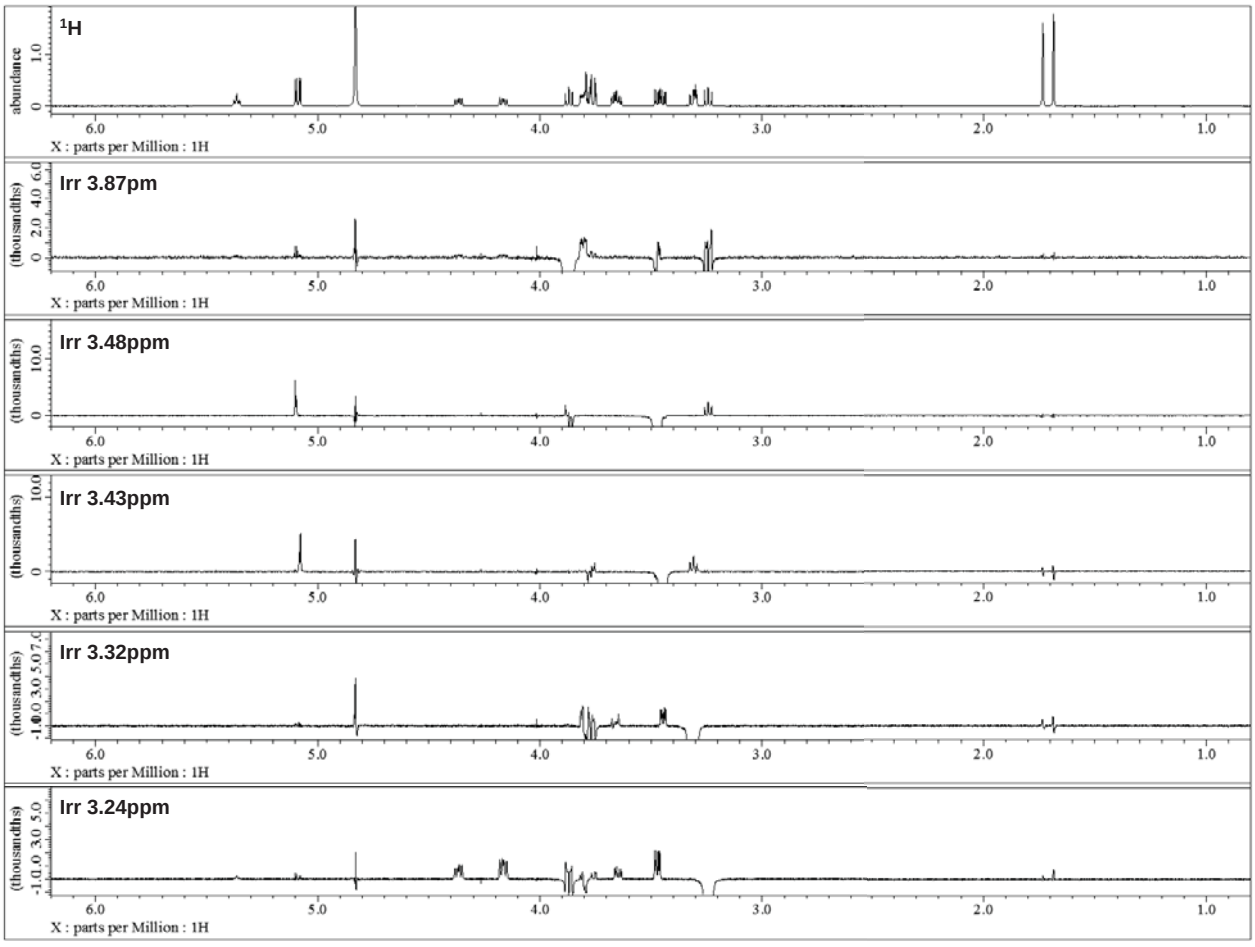
Supplementary Figure 8

1D NOE spectra of lentztrehalose B in CD_3OD (I)



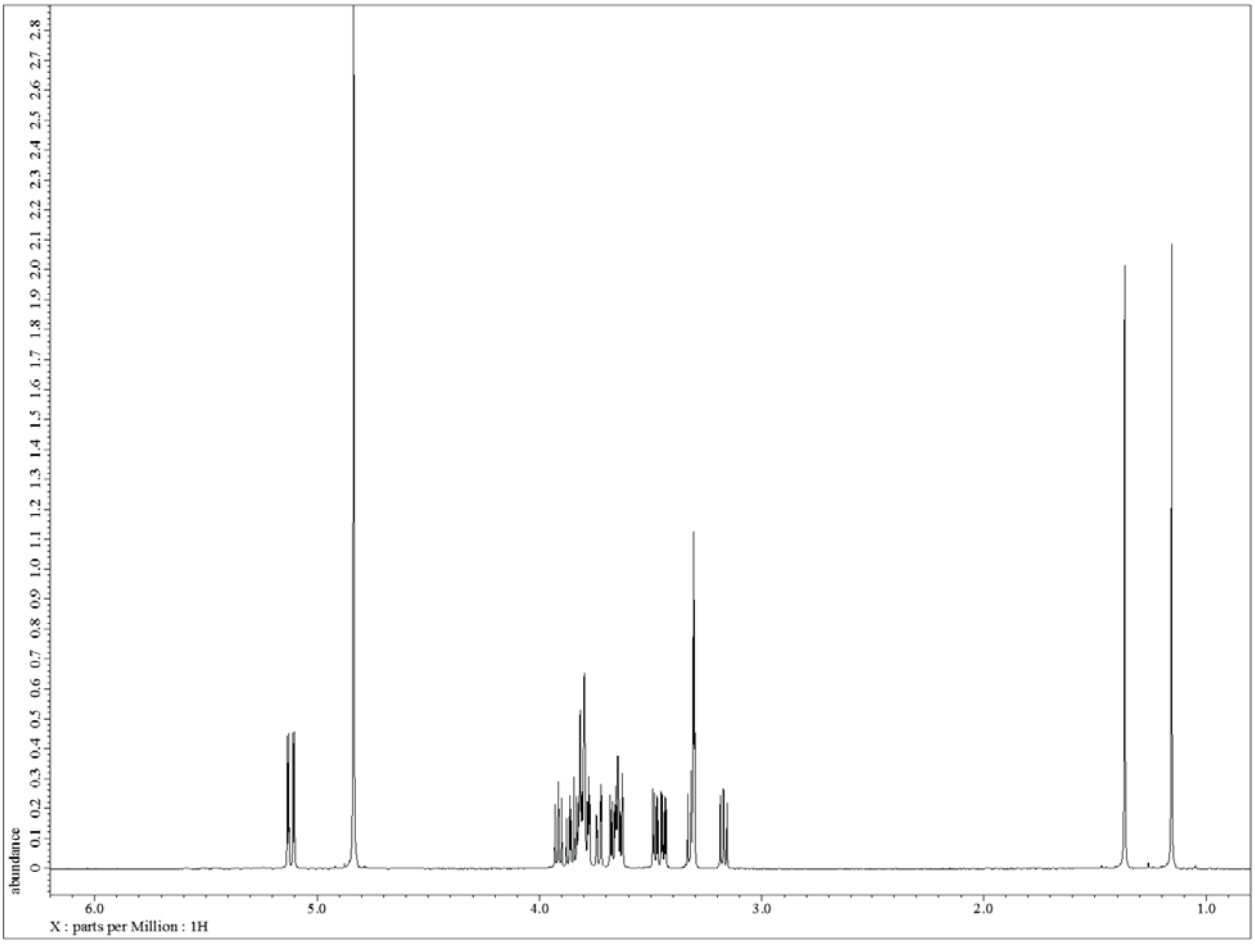
Supplementary Figure 9

1D NOE spectra of lentztrehalose B in CD_3OD (II)



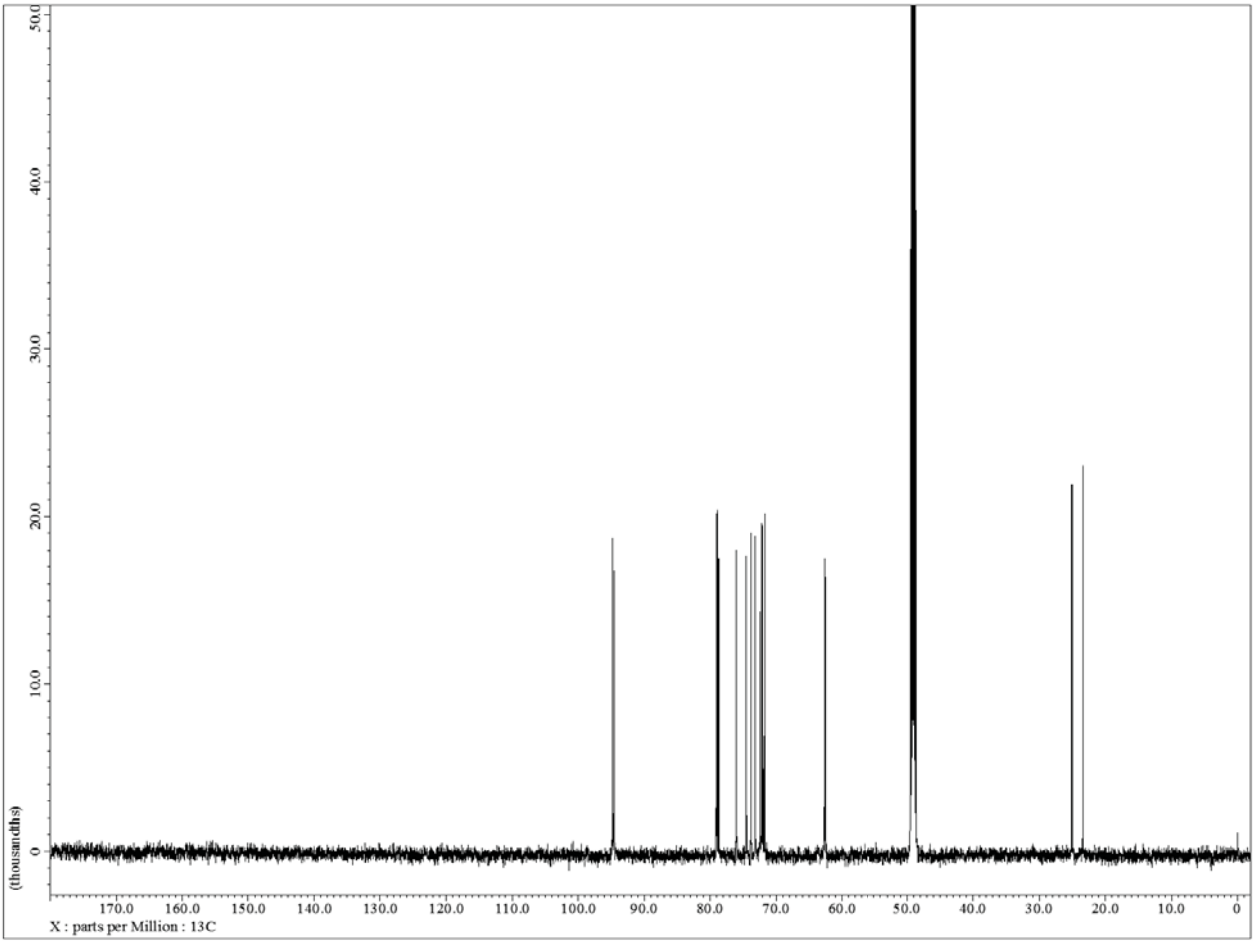
Supplementary Figure 10

^{1}H NMR spectrum of lentztrehalose C in CD_3OD



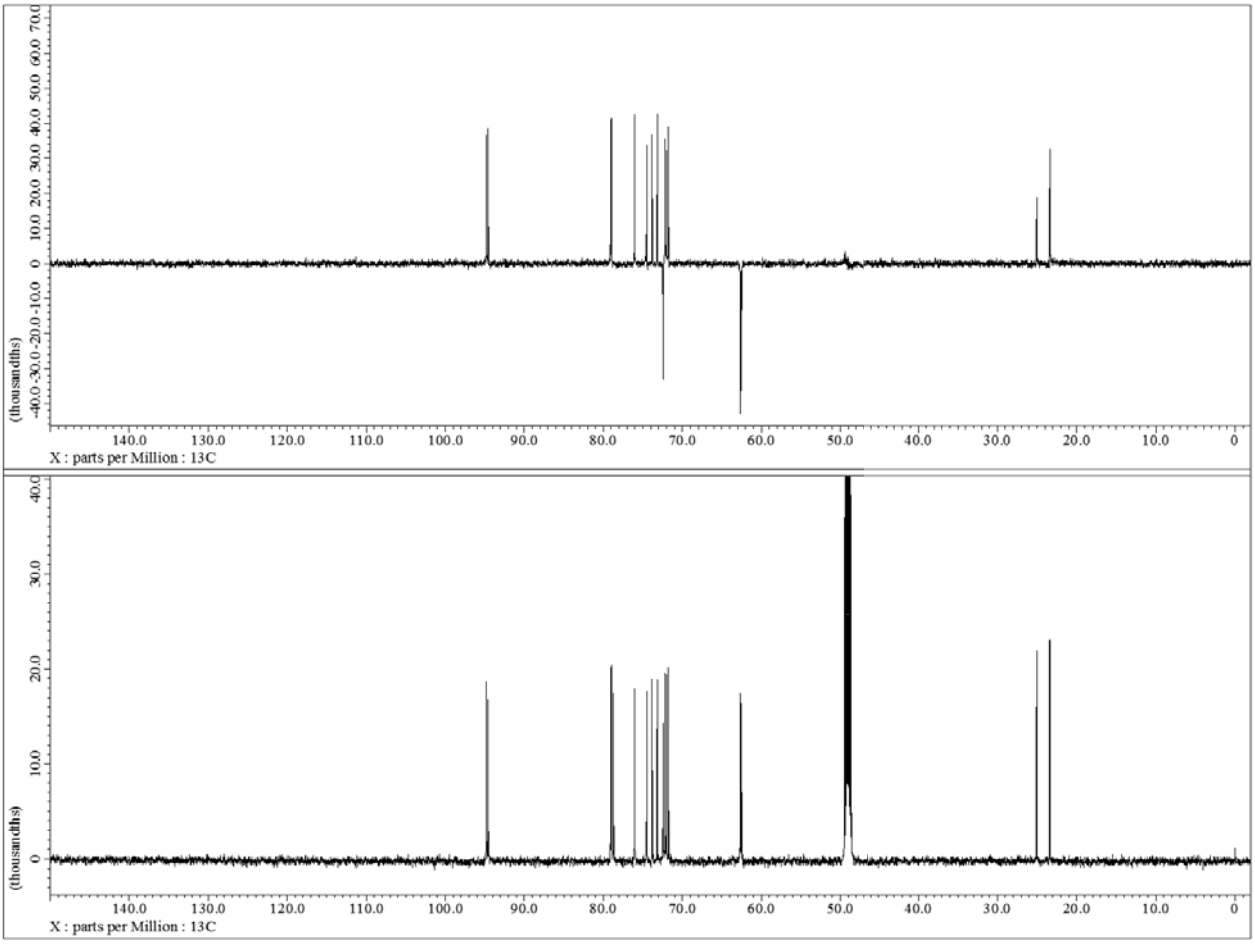
Supplementary Figure 11

^{13}C NMR spectrum of lentztrehalose C in CD_3OD



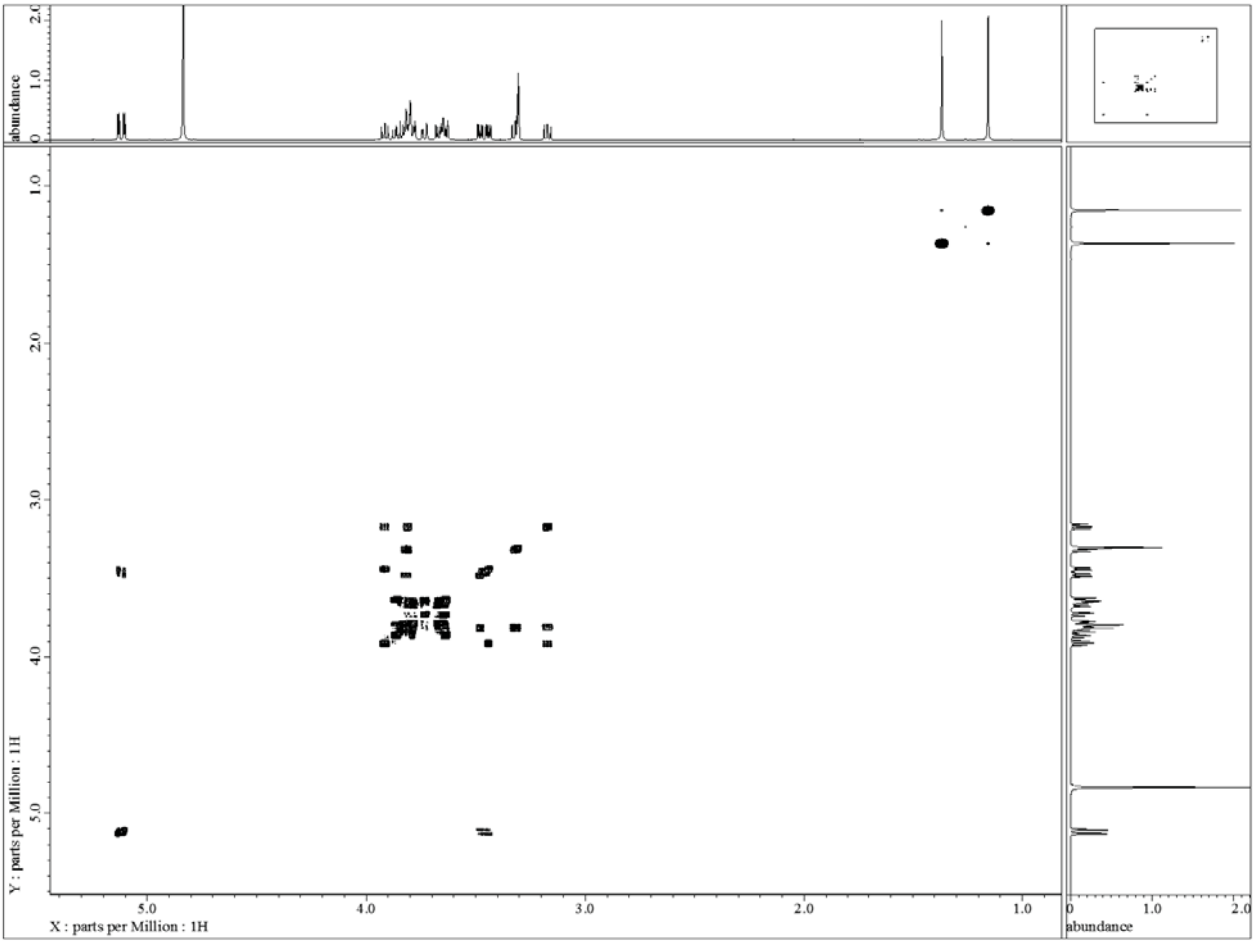
Supplementary Figure 12

DEPT135 spectrum of lentztrehalose C in CD_3OD



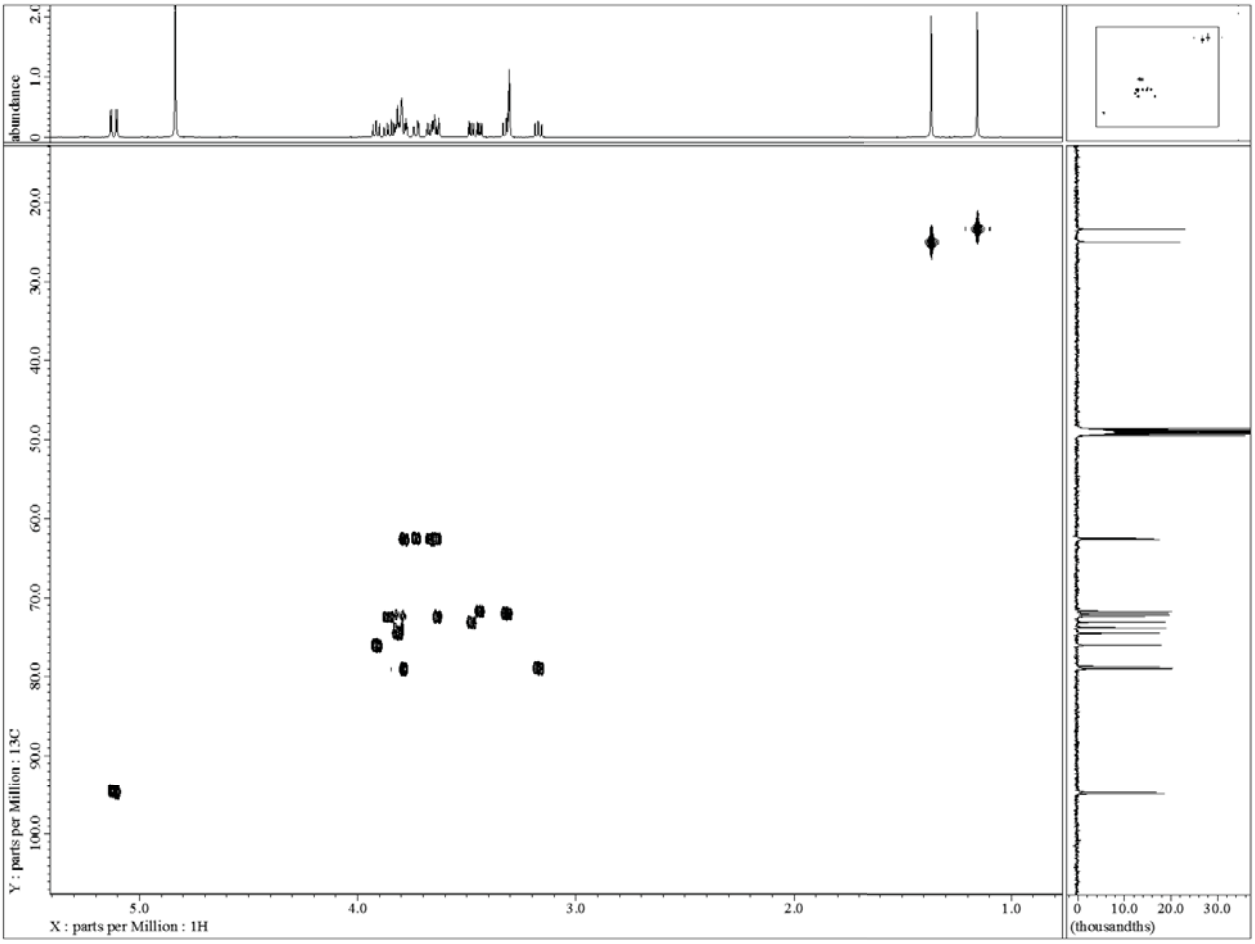
Supplementary Figure 13

^{1}H COSY spectrum of lentztrehalose C in CD_3OD



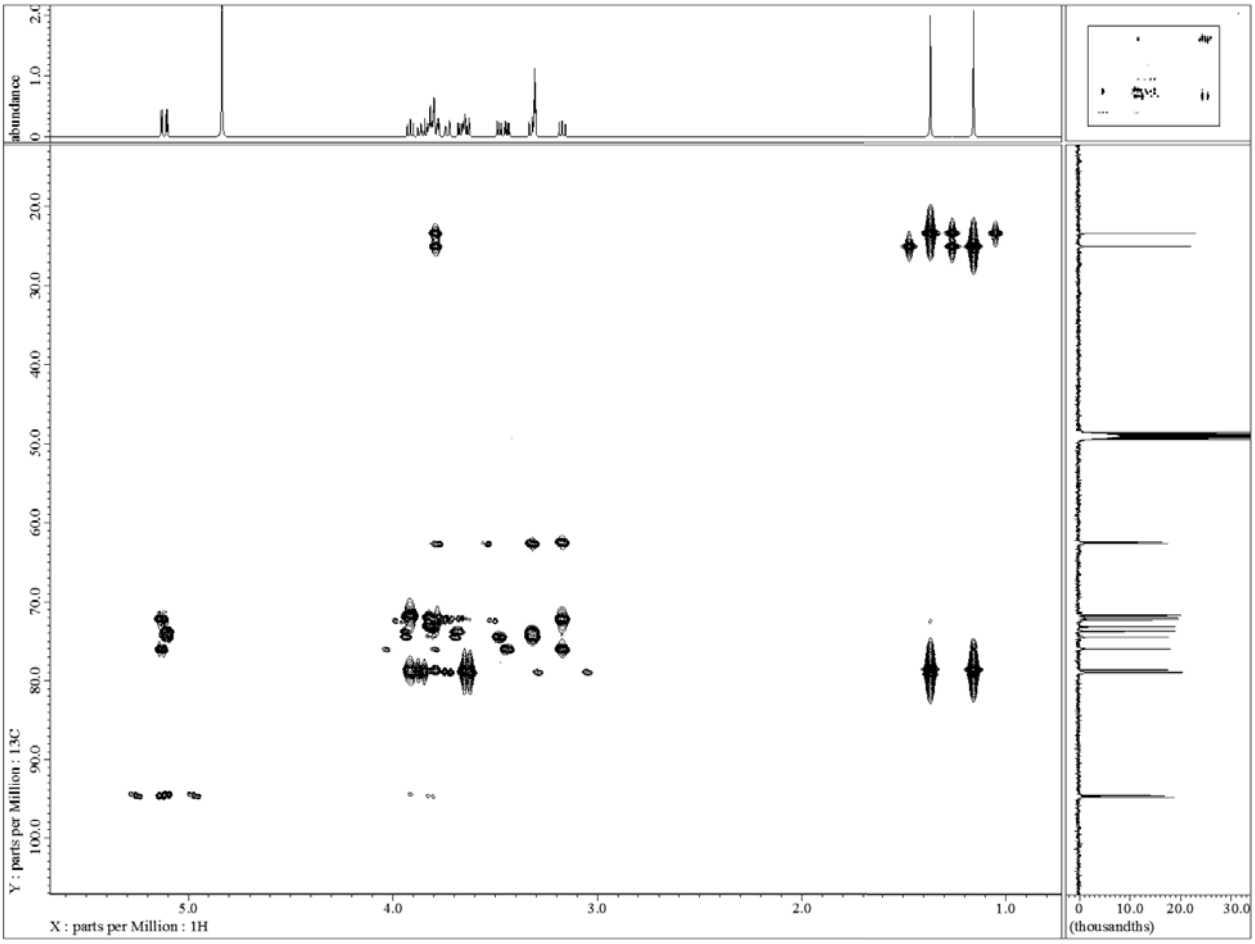
Supplementary Figure 14

^{1}H- ^{13}C HMQC spectrum of lentztrehalose C in CD_3OD



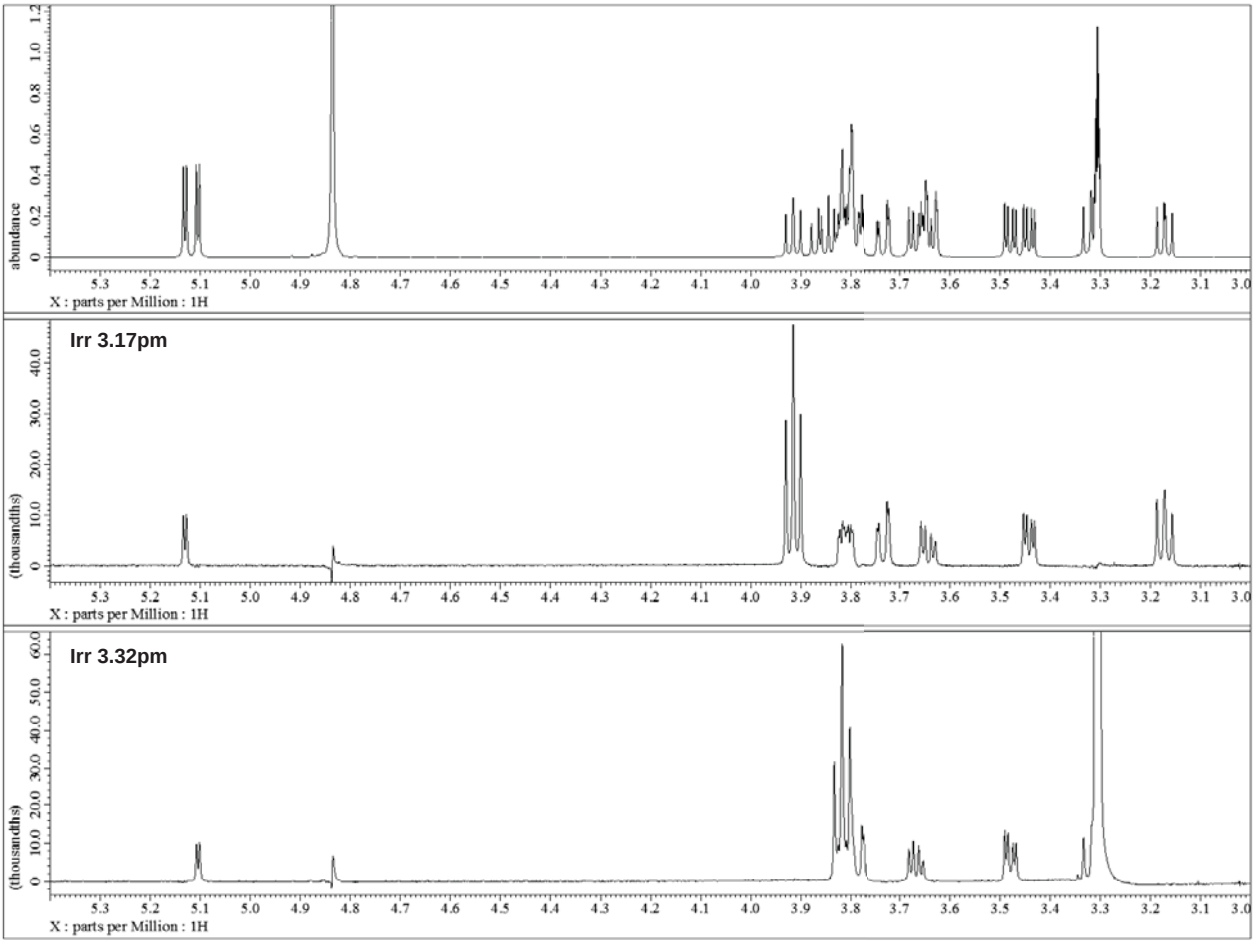
Supplementary Figure 15

^{1}H- ^{13}C HMBC spectrum of lentztrehalose C in CD_3OD



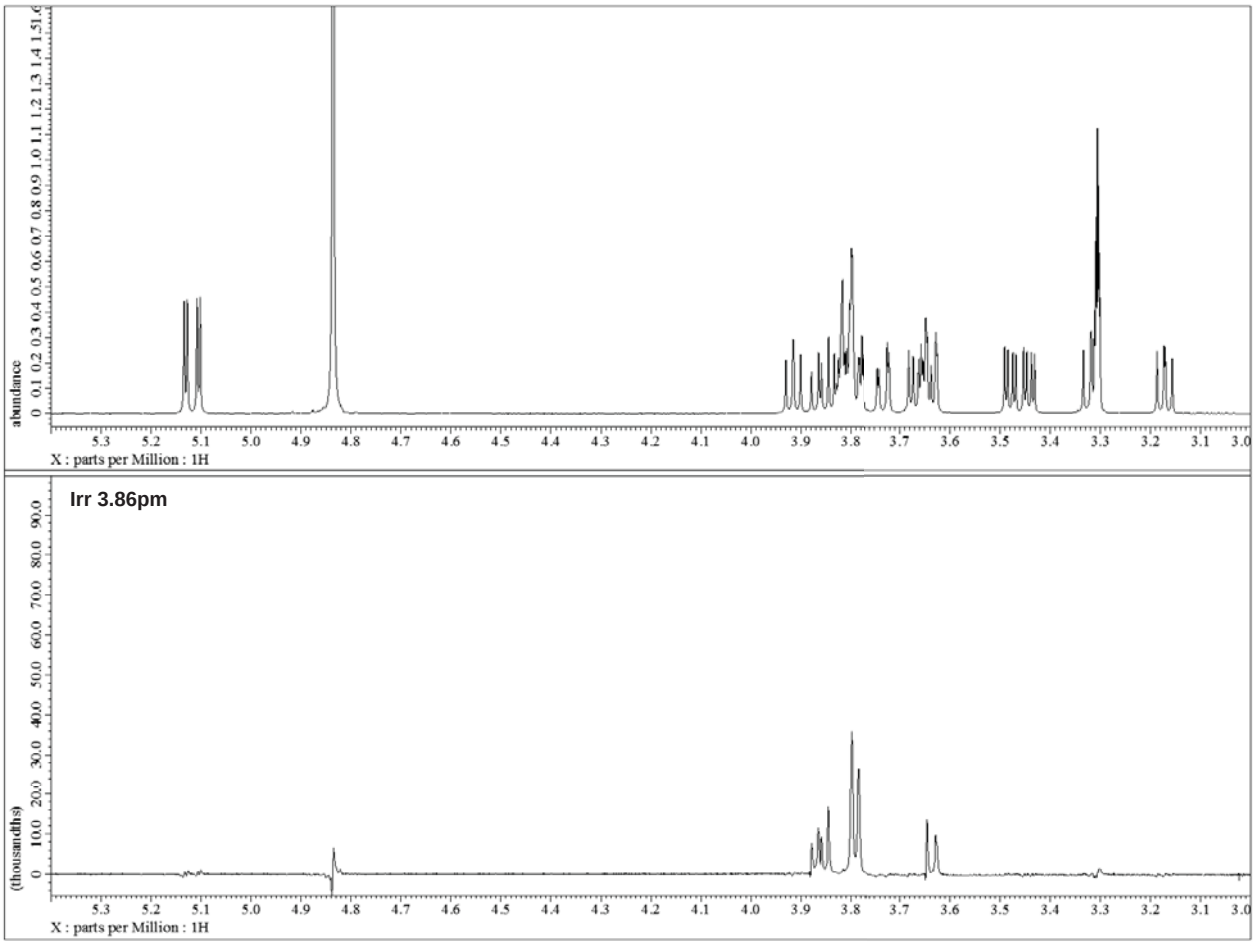
Supplementary Figure 16

1D TOCSY spectra of lentztrehalose C in CD_3OD (I)



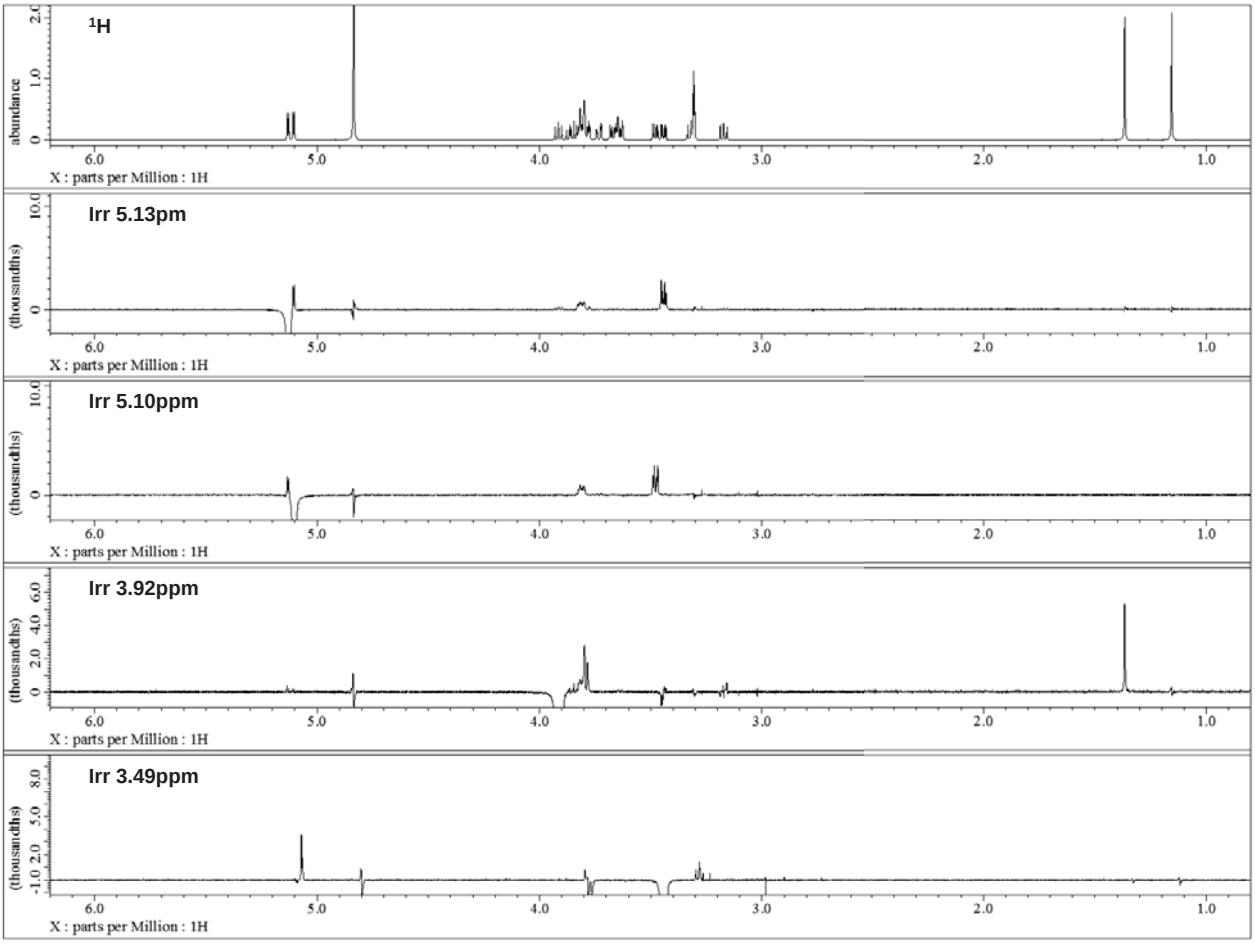
Supplementary Figure 17

1D TOCSY spectra of lentztrehalose C in CD_3OD (II)



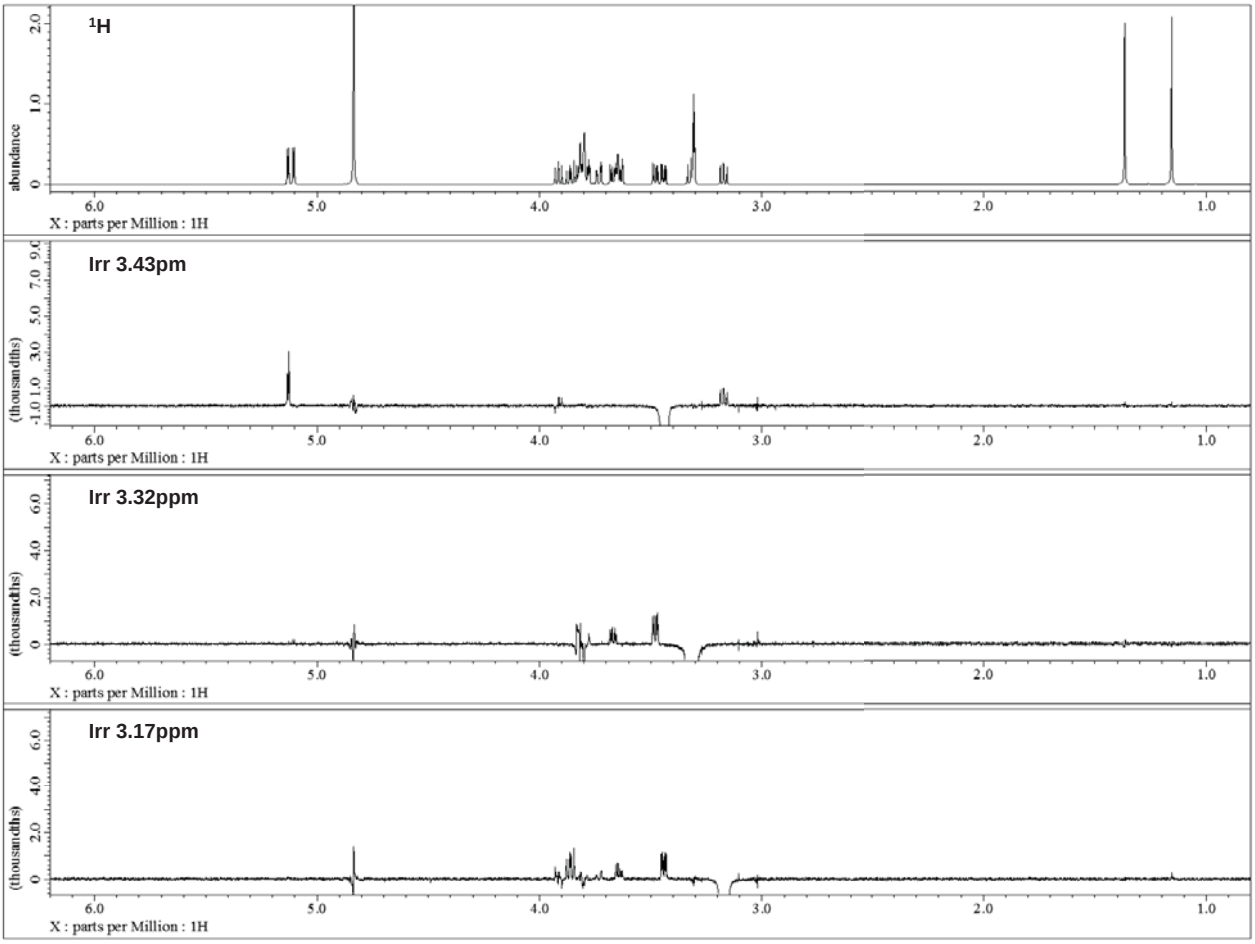
Supplementary Figure 18

1D NOE spectra of lentztrehalose C in CD_3OD (I)

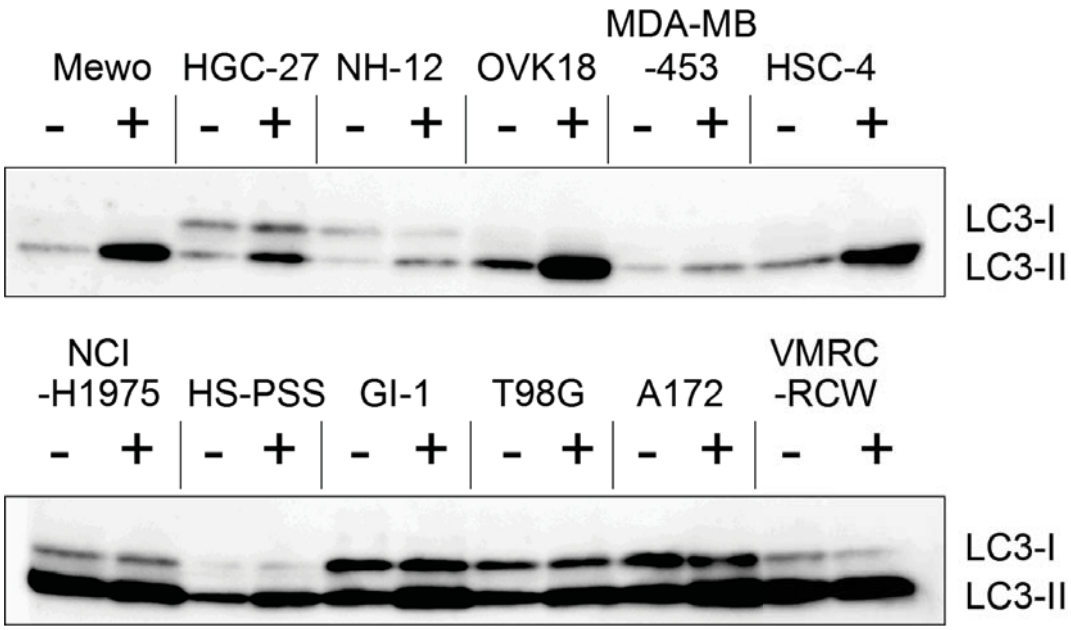


Supplementary Figure 19

1D NOE spectra of lentztrehalose C in CD_3OD (II)



Supplementary Figure 20



Supplementary Figure 20. Induction of autophagy by trehalose in human cancer cells.
Each cancer cell line was plated at 2.7 x 10^4 cells/ml on a culture dish and cultured for 72 hours.
The cells were treated with (+) or without (-) 100-mM trehalose for 24 hours and 2.5-μg protein of whole cell lysates was applied on western blotting to detect the expression levels of autophagy markers LC3-I and LC3-II.
Cancer cell lines: Mewo (melanoma) was obtained from Health Science Research Resources Bank (Sennan, Japan). HGC-27 (gastric cancer), NH-12 (neuroblastoma), OVK18 (ovarian cancer), MDA-MB-453 (breast carcinoma), HSC-4 (tongue squamous cell carcinoma), HS-PSS (peripheral nerve sheath tumor), GI-1 (glioma),T98G (glioblastoma), A172 (glioblastoma), and VMRC-RCW (renal cell carcinoma) were obtained from RIKEN BRC Cell Bank (Tsukuba, Japan). NCI-H1975 (lung cancer) was obtained from American Type Culture Collection (Manassas, VA, USA).