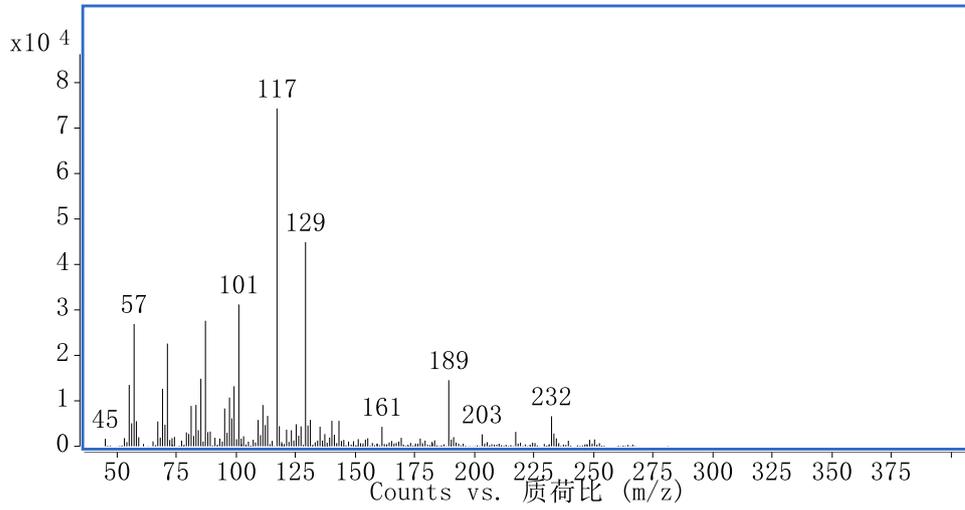
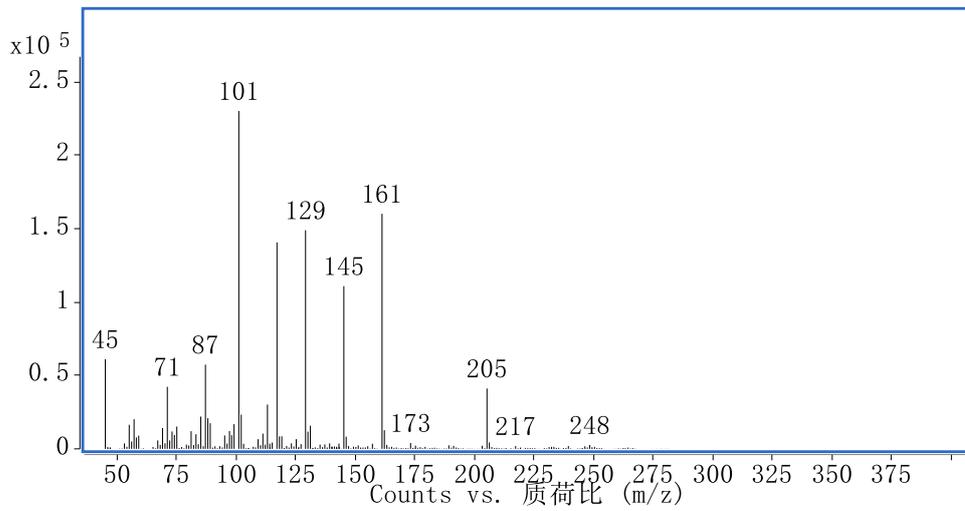


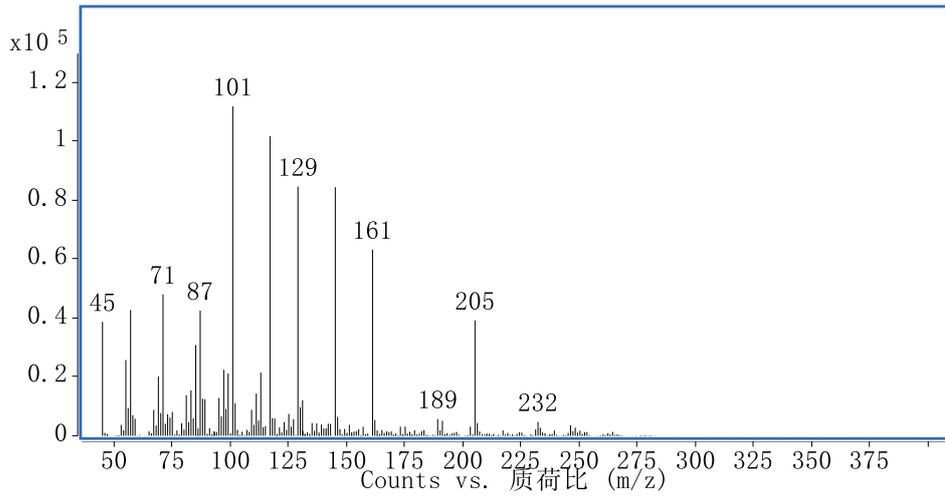
Supplementary Fig. S1 The mass spectra and proposed fragmentation 2,3,4-Me₃-Fuc



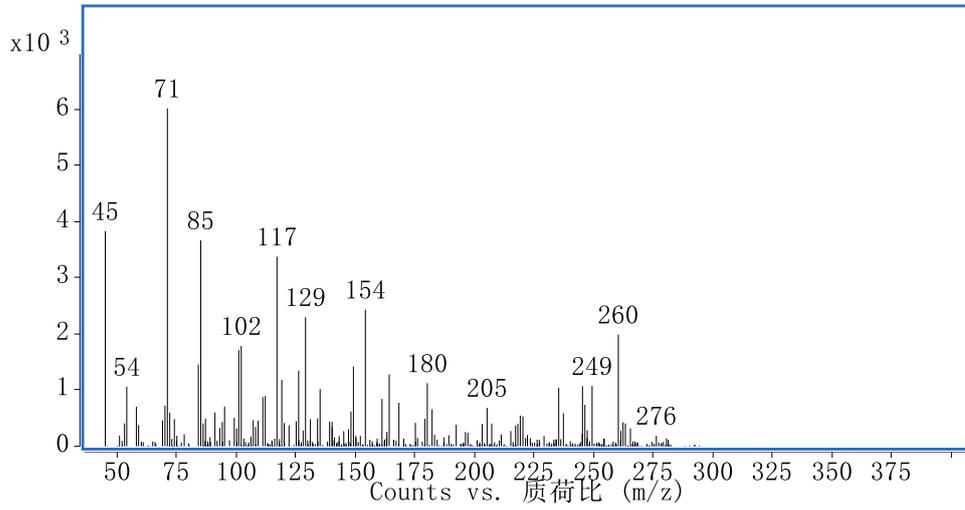
Supplementary Fig. S2 The mass spectra and proposed fragmentation 2,3-Me₂-Xyl



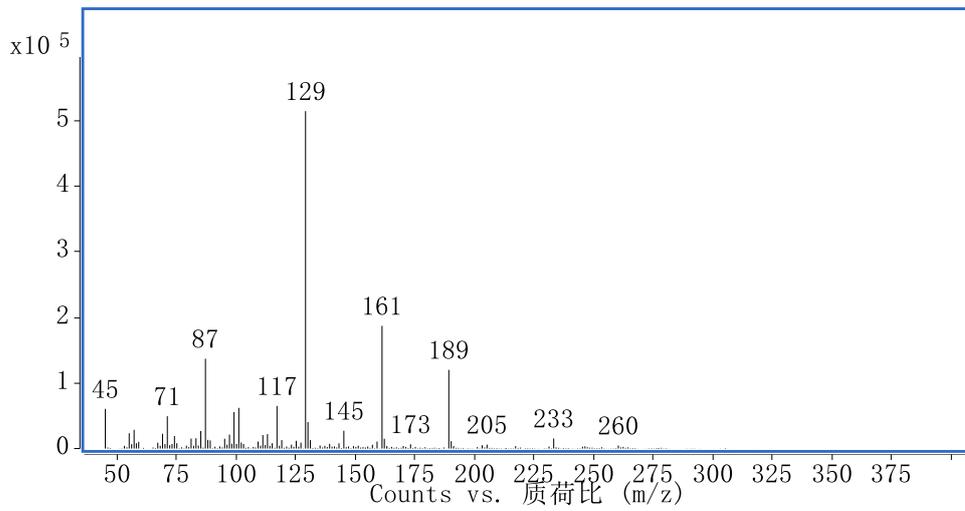
Supplementary Fig. S3 The mass spectra and proposed fragmentation 2,3,4,6-Me₄-Glc



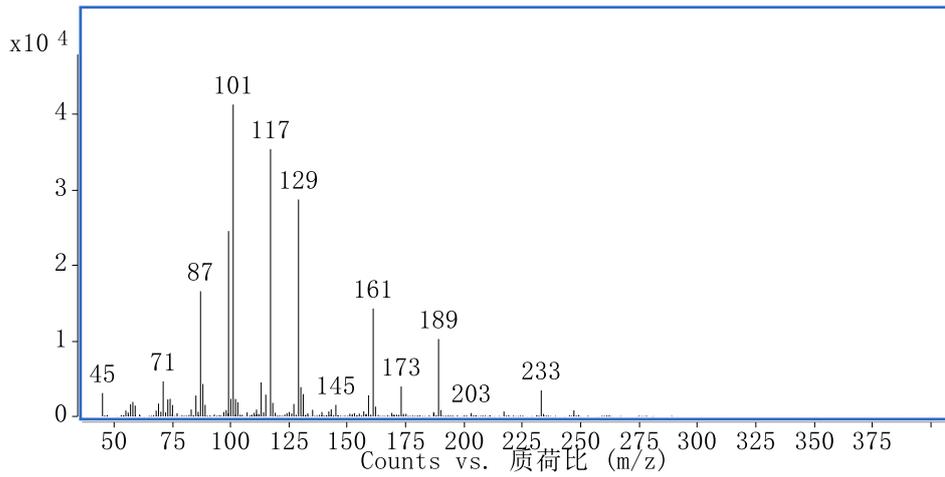
Supplementary Fig. S4 The mass spectra and proposed fragmentation 2,3,4,6-Me₄-Man



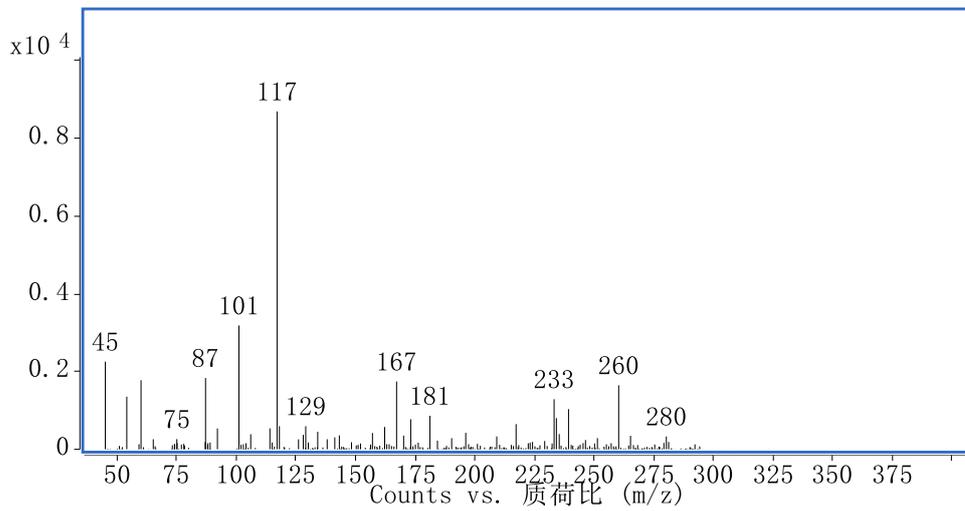
Supplementary Fig. S5 The mass spectra and proposed fragmentation 3,4,6-Me₃-D-Glc-2-N



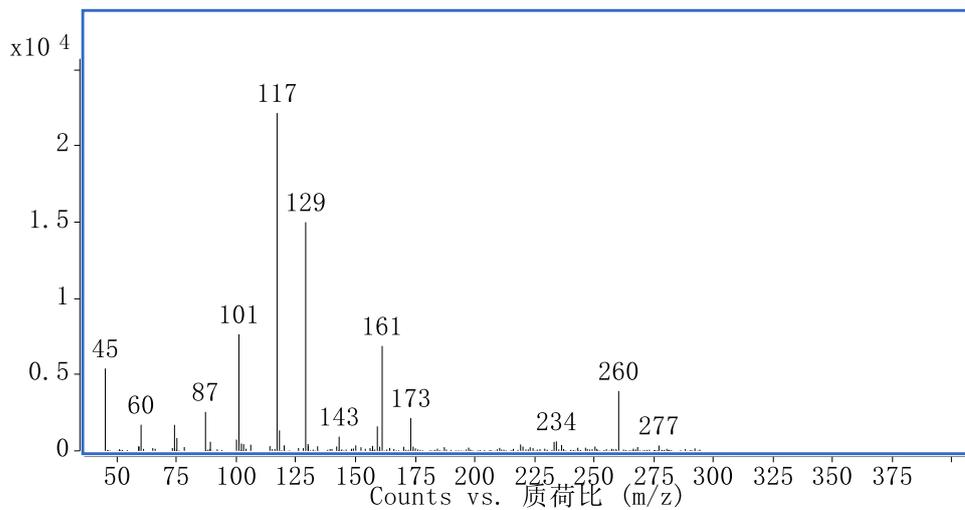
Supplementary Fig. S6 The mass spectra and proposed fragmentation 3,4,6-Me₃-Man



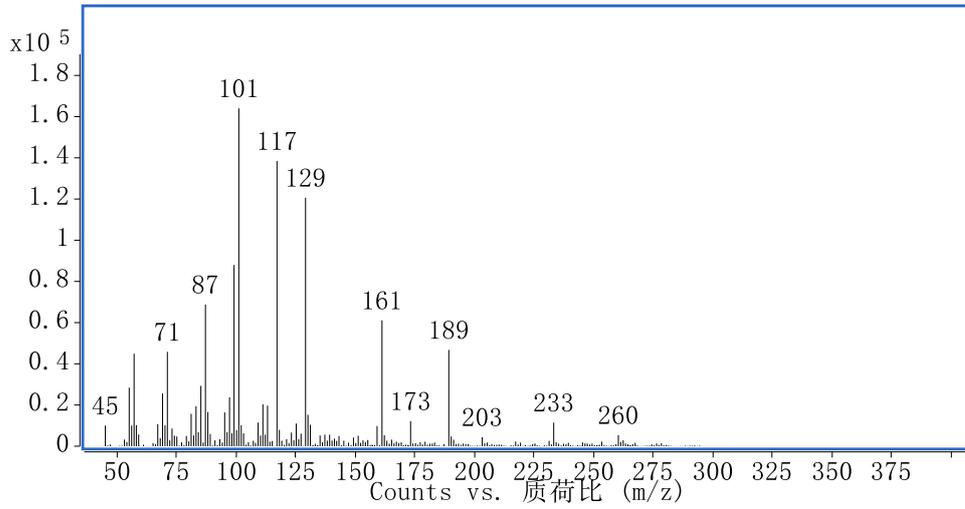
Supplementary Fig. S7 The mass spectra and proposed fragmentation 2,4,6-Me₃-Glc



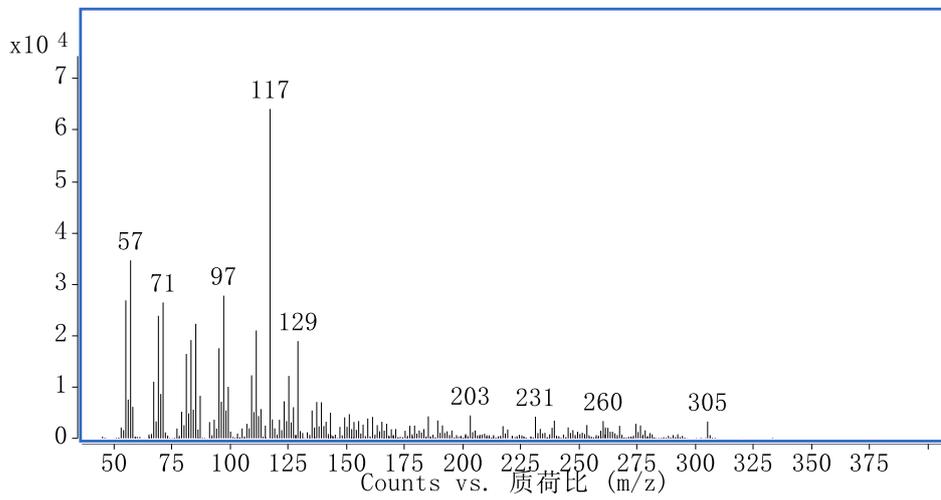
Supplementary Fig. S8 The mass spectra and proposed fragmentation 2,3,6-Me₃-Glc



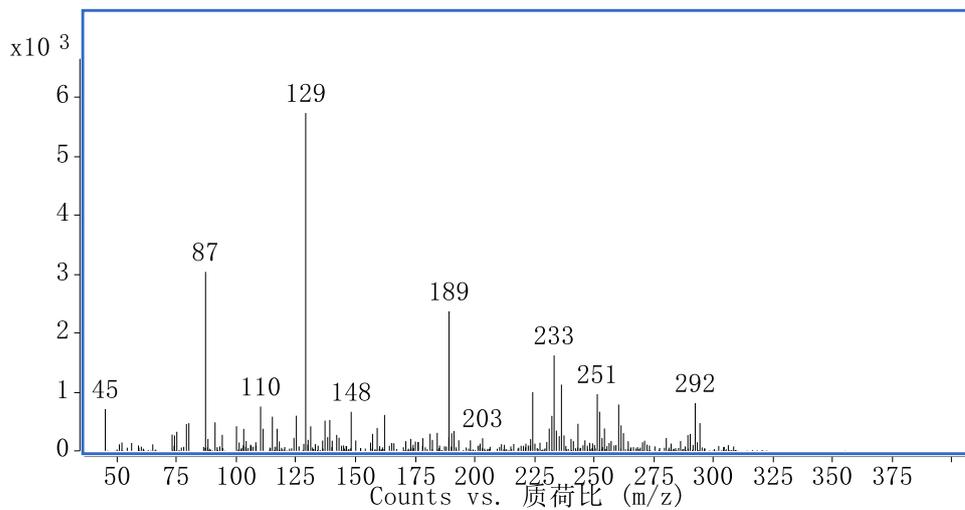
Supplementary Fig. S9 The mass spectra and proposed fragmentation 2,4,6-Me₃-Gal



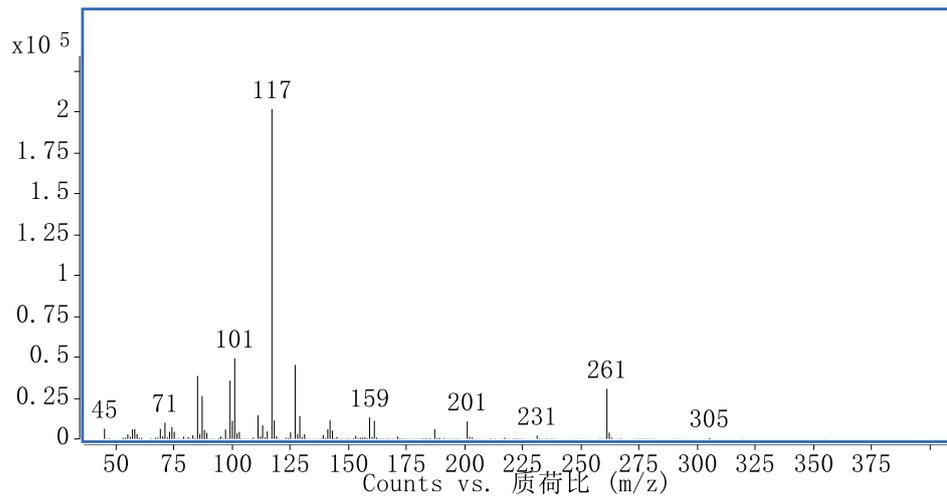
Supplementary Fig. S10 The mass spectra and proposed fragmentation 2,3,4-Me₃-Glc



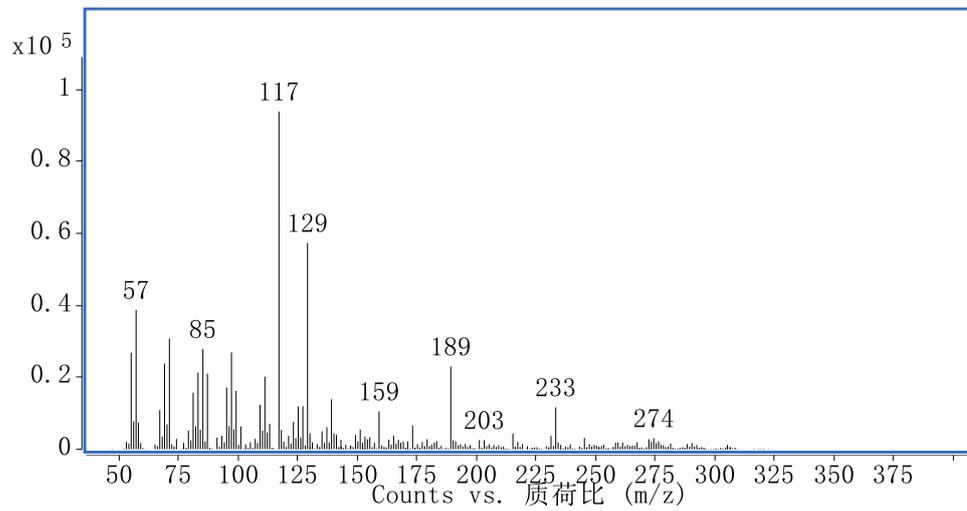
Supplementary Fig. S11 The mass spectra and proposed fragmentation 2,6-Me₂-Glc



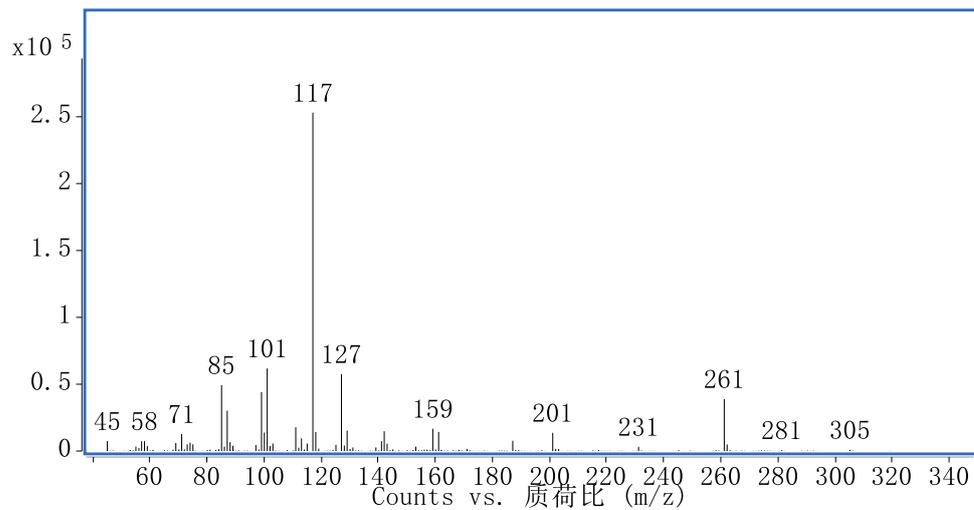
Supplementary Fig. S12 The mass spectra and proposed fragmentation 2,3-Me₂-Man



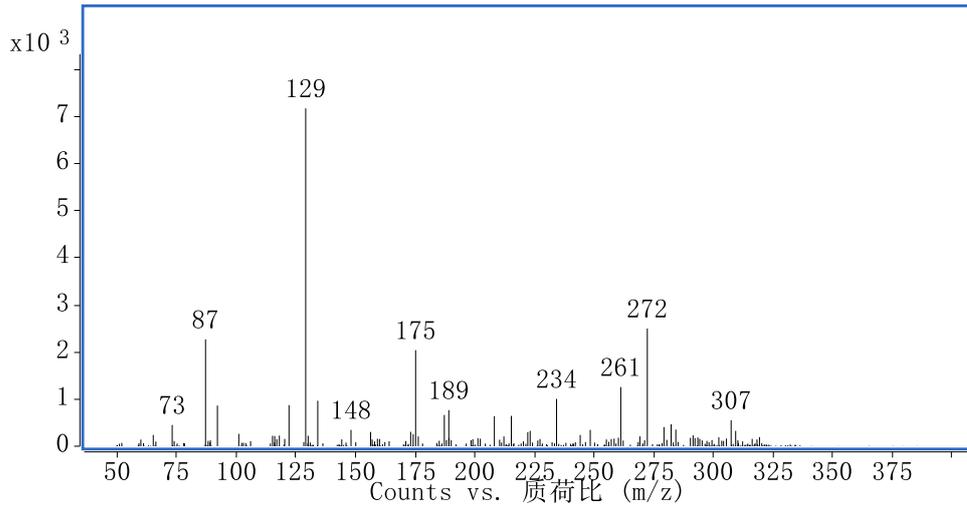
Supplementary Fig. S13 The mass spectra and proposed fragmentation 2,3-Me₂-Glc



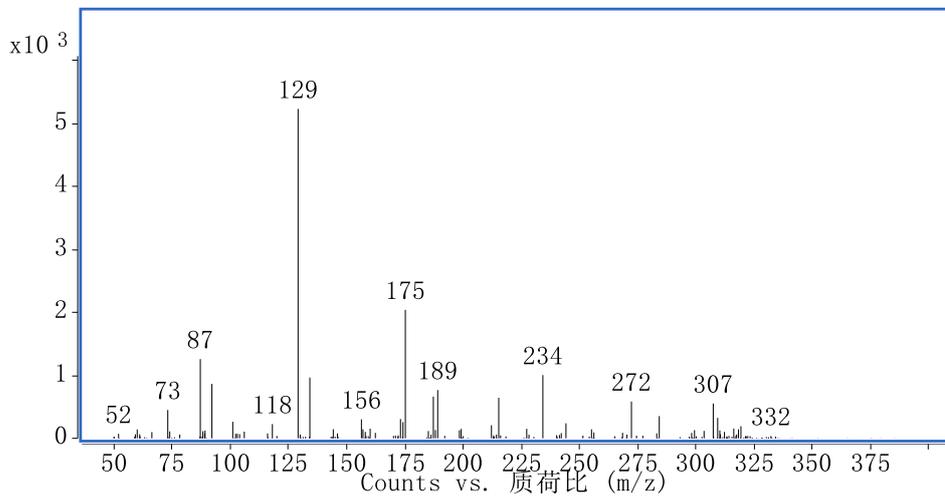
Supplementary Fig. S14 The mass spectra and proposed fragmentation 2,4-Me₂-Glc



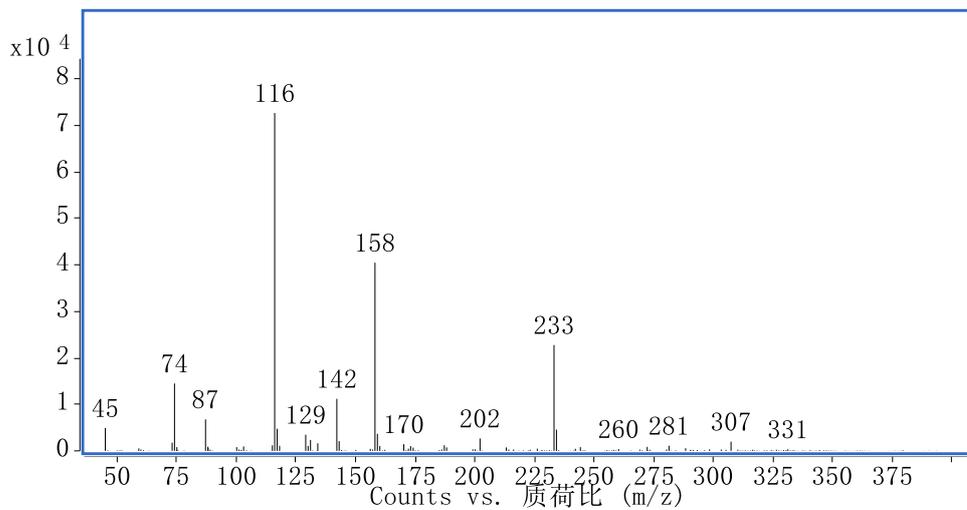
Supplementary Fig. S15 The mass spectra and proposed fragmentation 2,3-Me₂-Gal



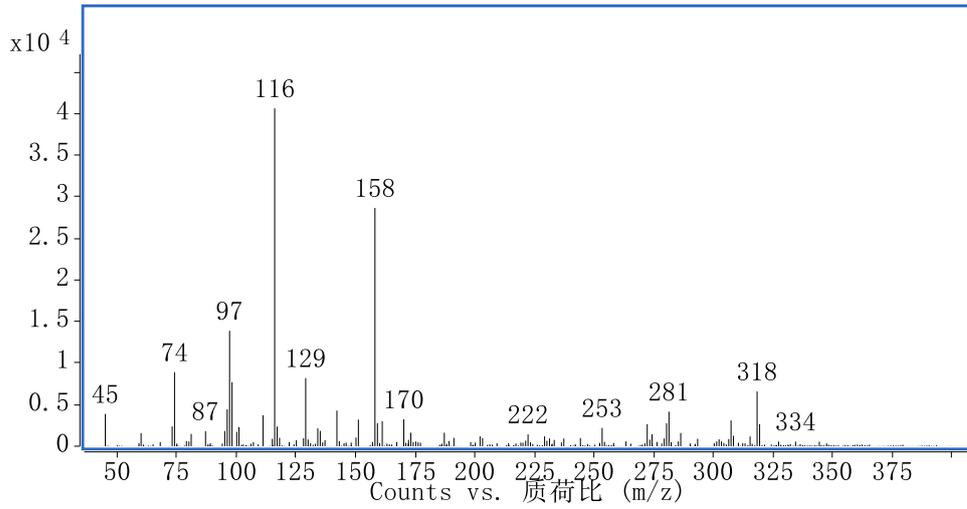
Supplementary Fig. S16 The mass spectra and proposed fragmentation 4,6-Me₂-D-Gal-2-N



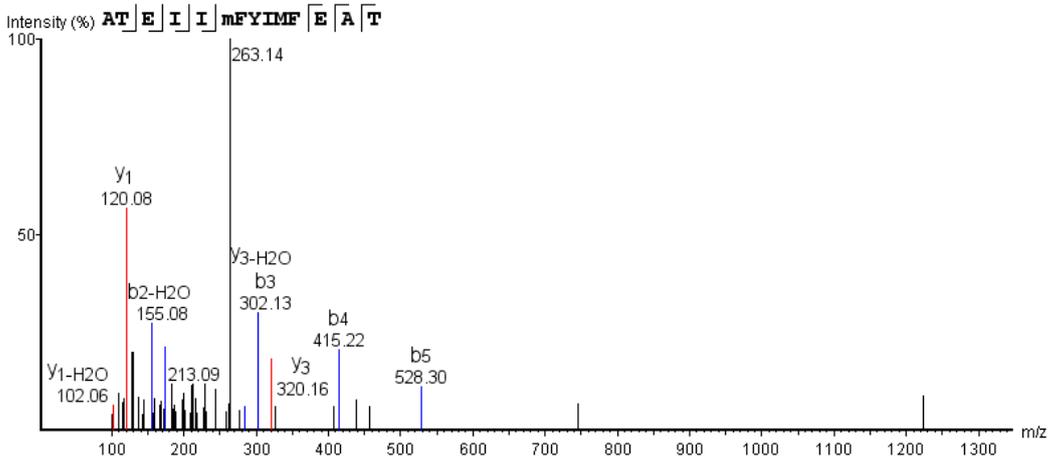
Supplementary Fig. S17 The mass spectra and proposed fragmentation 4,6-Me₂-D-Glc-2-N



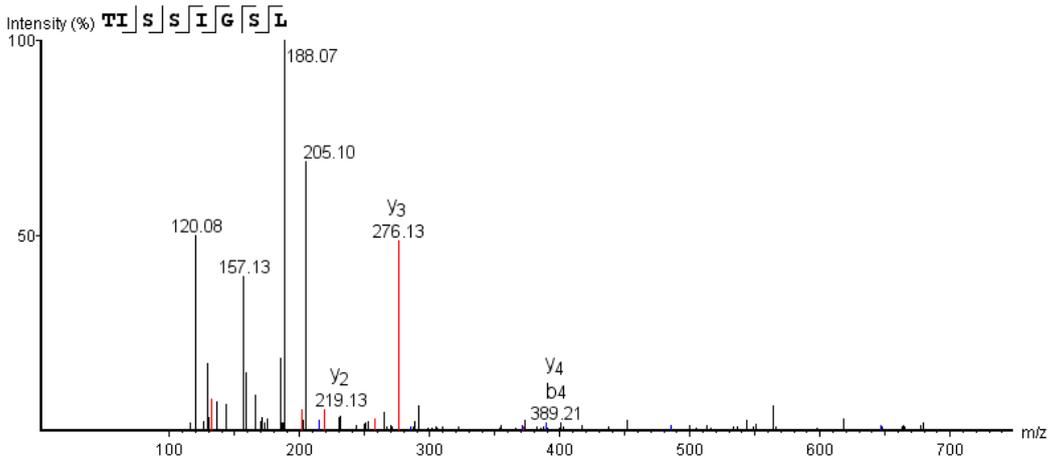
Supplementary Fig. S18 The mass spectra and proposed fragmentation 4-Me₁-D-Gal-2-N



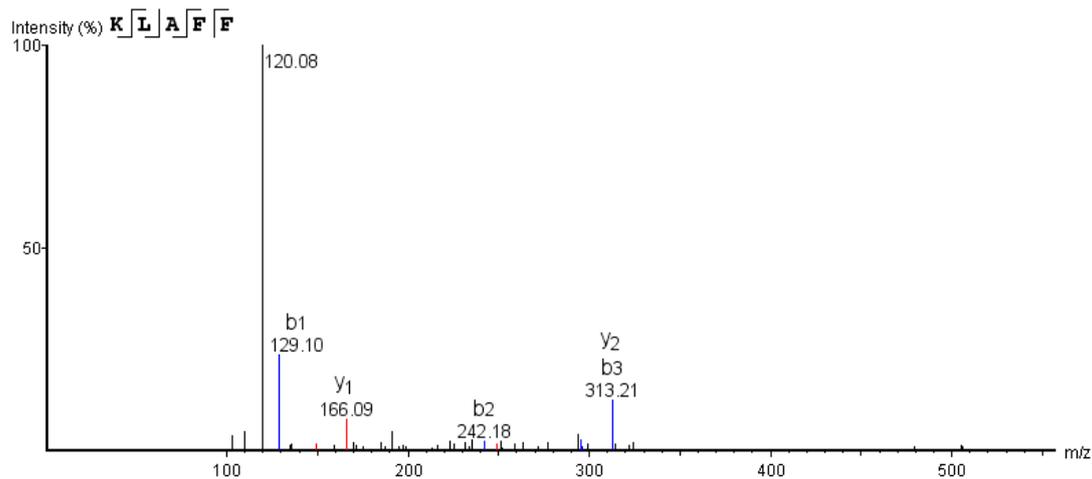
Supplementary Fig. S19 The mass spectra and proposed fragmentation 4-Me₁-D-Glc-2-N



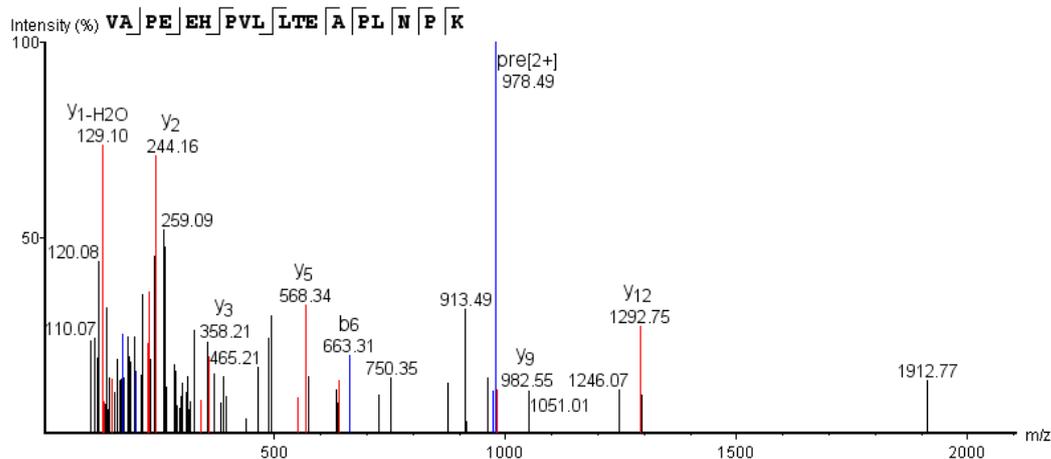
Supplementary Fig. S20 Two-stage mass spectrum of ATEImFYIMFIEAT peptide segment of T-ES



Supplementary Fig. S21 Two-stage mass spectrum of TISSIGSL peptide segment of T-ES



Supplementary Fig. S22 Two-stage mass spectrum of KLAFF peptide segment of T-ES



Supplementary Fig. S23 Two-stage mass spectrum of VAPEEHPVLLTEAPLNPK peptide segment of T-ES

Supplementary Table S1 Match peptides segment list information

No.	Peptide fragment	Molecular weight	m/z	Reliability	Area
1	ATEImFYIMFIEAT	789.4272	790.4354	45.16	9.13×10 ⁵
2	TISSIGSL	776.4280	389.2180	35.34	3.34×10 ⁵
3	KLAFF	624.3635	313.1895	38.07	1.06×10 ⁵
4	ADNKSMI	777.3691	389.6900	18.94	2.37×10 ⁷
5	VAPEEHPVLLTEAPLNPK	1953.0570	977.5369	36.87	7.23×10 ⁴