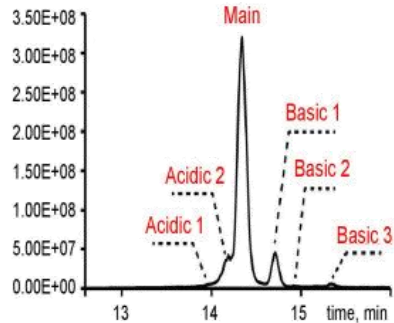


# モノクローナル抗体のオンラインネイティブ質量分析(SCX-MS)

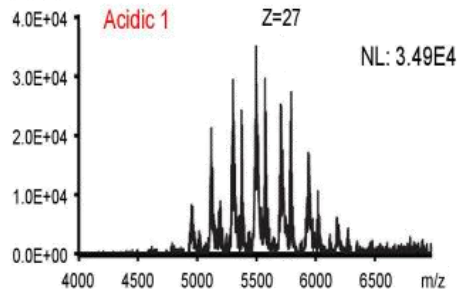
Online native mass SCX-MS analysis of monoclonal antibody

L200521A

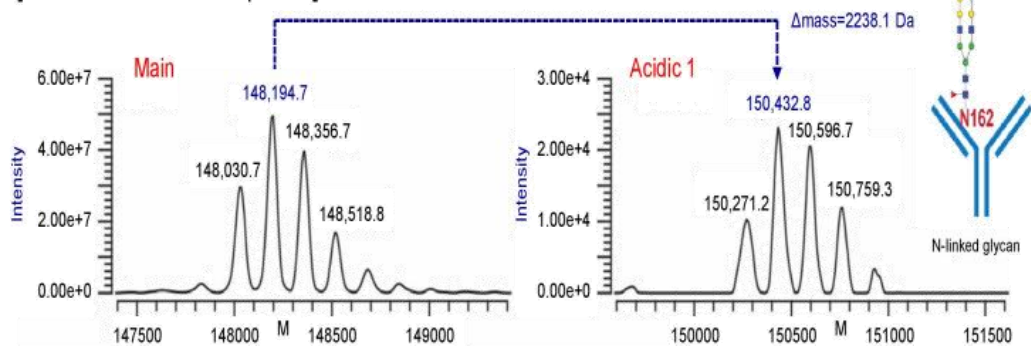
[TIC, native NISTmAb]



[Raw mass spectrum]



[Deconvoluted mass spectra]



Courtesy of S. Wang, Regeneron Pharmaceuticals Inc.

Column	: BioPro IEX SF (5 $\mu\text{m}$ ) 100 X 4.6 mm I.D.
Eluent	: A) 20 mM $\text{CH}_3\text{COONH}_4\text{-CH}_3\text{COOH}$ (pH 5.6) B) 140 mM $\text{CH}_3\text{COONH}_4\text{-10 mM NH}_4\text{HCO}_3$ (pH 7.4) 0%B (0-2 min), 0-100%B (2-18 min), 100%B (18-22 min)
Flow rate	: 0.4 mL/min <small>(To enable online simultaneous UV and MS detection, a post-column analytical splitter (~400:1 ratio) was connected)</small>
Temperature	: 45°C
Detection	: nanospray ionization-mass spectrometry (NSI-MS)
Load	: 50 $\mu\text{g}$
System	: LC) ACQUITY UPLC I-Class system (Waters) MS) Exactive™ Plus EMR mass spectrometer (Thermo Fisher Scientific)

Reference:

Y. Yan, A. P. Liu, S. Wang, T. J. Daly, N. Li, Ultrasensitive Characterization of Charge Heterogeneity of Therapeutic Monoclonal Antibodies Using Strong Cation Exchange Chromatography Coupled to Native Mass Spectrometry Anal. Chem. 90 (2018) 13013-13020.