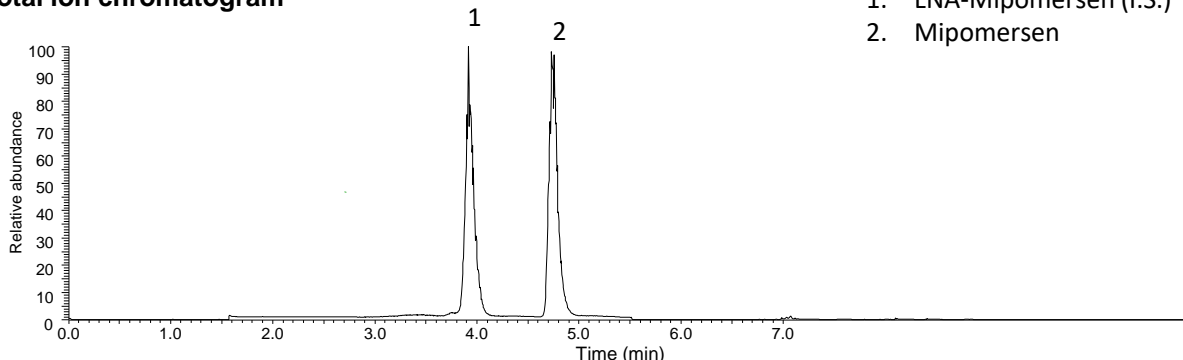


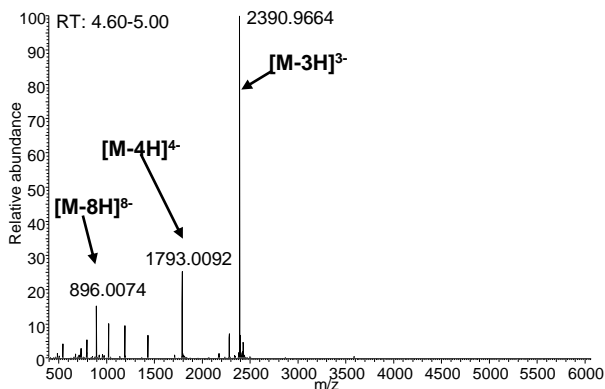
アンチセンスオリゴヌクレオチド(ミポメルセン)のLC-HRMS分析
LC-HRMS analysis of antisense oligonucleotides (mipomersen)

R201223A

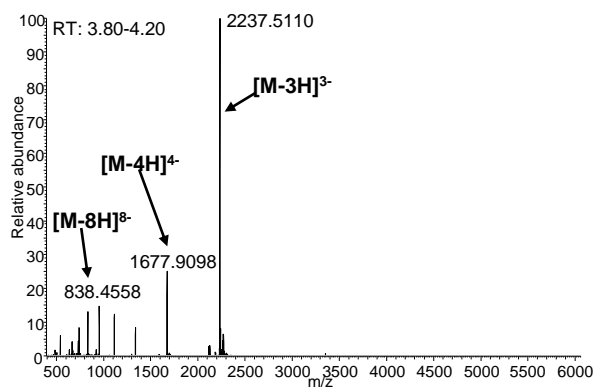
Total ion chromatogram



Mass spectrum of mipomersen



Mass spectrum of LNA-mipomersen



Courtesy of Y. Sun, National Institute of Health Sciences

Column	: YMC-Triart C8 [Metal free column] (1.9 μm, 12 nm) ^{*1} 100 X 2.1 mm I.D.
Eluent	: A) water/triethylamine/HFIP ^{*2} (100/0.4/2; triethylamine 28.0 mM, HFIP 135.8 mM) B) methanol/triethylamine/HFIP (100/0.4/2)
Gradient	: [Sample separation step] 10-40%B (0-5.0 min) [Column wash steps] 40-70%B (5.0-5.1 min), 70%B (5.1-7.0 min), 70-10%B (7.0-7.1 min), 10%B (7.1-8.0 min), 10-90%B (8.0-8.1 min), 90%B (8.1-9.0 min), 90-10%B (9.0-9.1 min), 10%B (9.1-10.0 min), 10-90%B (10.0-10.1 min), 90%B (10.1-11.0 min), 90-10%B (11.0-11.1 min)
Flow rate	: 0.3 mL/min
Temperature	: 50°C
Injection	: 10 μL (1000 ng/mL)
System	: LC) Vanquish Binary Pump H system (Thermo Fisher Scientific) HRMS) Orbitrap HRMS Q Exactive Plus (Thermo Fisher Scientific)

^{*1} Prewashed the column prior to the first use with water/methanol/phosphoric acid (70/30/0.1) for 1 hour

^{*2} 1,1,1,3,3,3-hexafluoro-2-propanol

Reference:

Y. Sun et al, Development of a bioanalytical method for an antisense therapeutic using high-resolution mass spectrometry, Bioanalysis, 2020 NOV 26, doi: 10.4155/bio-2020-0225.