ThermoFisher SCIENTIFIC

PRODUCT DATA SHEET

Pierce FlexMix Calibration Solution

Product Number: A39239 **Lot Number:** 3212628 **Expiration:** August 19, 2027

Summary:

The Thermo Scientific™ Pierce™ FlexMix Calibration Solution is a room-temperature stable, ready-to-use liquid formulation for the calibration of all Thermo Scientific Tribrid™ mass spectrometers. The only additional materials required are a 500µL Hamilton syringe and a liquid infusion line, both supplied with the instrument.

Visual:

Clear, colorless liquid

Components	Accurate Mass (m/z)	Specification (neat)	Results
*LC-MS grade acetonitrile (90% v/v)	--	Purity ≥ 99.9%	Pass
*LC-MS grade water (10% v/v)	--	LC-MS Grade	Pass
LC-MS grade acetic acid	59.0139[b(-)]	Purity ≥ 99.7%	Pass
Imidazole	69.0447[a(+)]	Purity ≥ 99.0%	Pass
Triethylamine	102.1277[a(+)]	Purity ≥ 99.5%	Pass
Trifluoroacetic acid (TFA)	112.9856[b(-)]	Purity ≥ 99.5%	Pass
Tetramethylpiperidine	142.1590[a(+)]	Purity ≥ 97.5%	Pass
Pentafluoropropionic acid	162.9824[b(-)]	Purity ≥ 97.0%	Pass
Caffeine	195.0876[a(+)]	Purity ≥ 97.0%	Pass
Hexamethoxyphosphazene	322.0481[a(+)]	Purity ≥ 99.0%	Pass
Perfluoroheptanoic acid	362.9696[b(-)]	Purity ≥ 96.0%	Pass
MRFA	524.2649[(a)+]	Purity ≥ 98%	Pass
2,4,6-Tris(heptafluoropropyl)-1,3,5-triazine	601.9779[c(-)]	Purity ≥ 95.0%	Pass
Hexakis(2,2-difluoroethoxy) phosphazene	622.0290[a(+)]	Purity ≥ 97.0%	Pass
Hexakis(2,2,3,3-tetrafluoropropoxy) phosphazene	922.0098[a(+)], 1033.9881[d(-)]	Purity ≥ 95.0%	Pass
Ultramark 1621	See note below	Purity ≥ 95.0%	Pass
Hexakis(1h,1h,7h-perfluoroheptoxy) phosphazene	2121.9331[a(+)], 2233.9115[d(-)]	Purity ≥ 95.0%	Pass
Hexakis(1h,1h,9h-perfluorononyloxy) phosphazene	2721.8948[a(+)], 2833.8731[d(-)]	Purity ≥ 95.0%	Pass

[a][M+H]+
[b][M-H]-
[c][M+OH]-
[d][M+TFA]-
*Combined concentration of all other components listed is less than 1% w/v

Note: Ultramark 1622 is a well-defined mixture of compounds producing a well-defined peak envelope in the range of 900-2200 m/z in the positive and negative ion modes.

Important Product Information:

- For best results, use a dedicated syringe and infusion line.
- Before and after calibration, flush the syringe and infusion line with 1:1 water/acetonitrile solution to clean.
- Turn on the mass spectrometer and wait for it to enter ready state.
- Infuse the calibration solution and optimize spray conditions until a spray stability of ≤ 15% RSD is achieved before initiating calibration routine.

Storage:

Upon receipt store at room temperature

Compatible with these Thermo Scientific™ Instruments:

Orbitrap Fusion™ MS

Orbitrap Fusion™ Lumos™ MS

Orbitrap ID-X MS

Orbitrap Tribrid™ Series 3.1 Instrument Control Software (or later)

Additional information:

For MSDS please visit
www.thermoscientific.com/pierce

For calibration procedure use:

Orbitrap Tribrid Series Getting Started Guide (June 2018)

Technical Support:

For hardware related support: 1-800-532-4752

For reagent support: 1-800-874-3723

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Analysis	Specification	Results
Positive Mode Target Ions (m/z) **69, 102, 142, 195, 322, 524, 622, 922, 1122, 1222, 1322, 1422, 1522, 1622, 1722, 1822, 2122, and 2722 *m/z*.**	All calibration ions are present in the spectrum	**Pass**
Negative Mode Target Ions (m/z) **113, 163, 363, 602, 1034,1234, 1334, 1434, 1534, 1634, 1734, 1834, 1934, 2234, and 2834 *m/z***	All calibration ions are present in the spectrum	**Pass**
Positive Mode Target Ions (m/z) **69, 102, 142, 195, 322, 524, 622, 922, 1522, 2122, and 2722 *m/z***	Ratio to Reference is between 0.5 and 2.0 for all ions listed below in positive ion mode: **69, 102, 142, 195, 322, 524, 622, 922, 1522, 2122, and 2722 *m/z***	**Pass**
Negative Mode Target Ions (m/z) **113, 163, 363, 602, 1034, 1534, 2234, and 2834 *m/z***	Ratio to Reference is between 0.5 and 2.0 for all ions listed below in negative ion mode: **113, 163, 363, 602, 1034, 1534, 2234, and 2834 *m/z***	**Pass**
Positive Mode Target Ions (m/z) **69, 102, 142, 195, 322, 524, 622, 922, 1122, 1222, 1322, 1422, 1522, 1622, 1722, 1822, 2122, 2722** **Negative Mode Target Ions (m/z)** **113, 163, 363, 602, 1034, 1234, 1334, 1434, 1534, 1634, 1734, 1834, 1934, 2234, 2834**	Contaminant ions are not > 30% of the intensity of the target reference peak within +/- 10 m/z in both positive and negative mode*.	**Pass**

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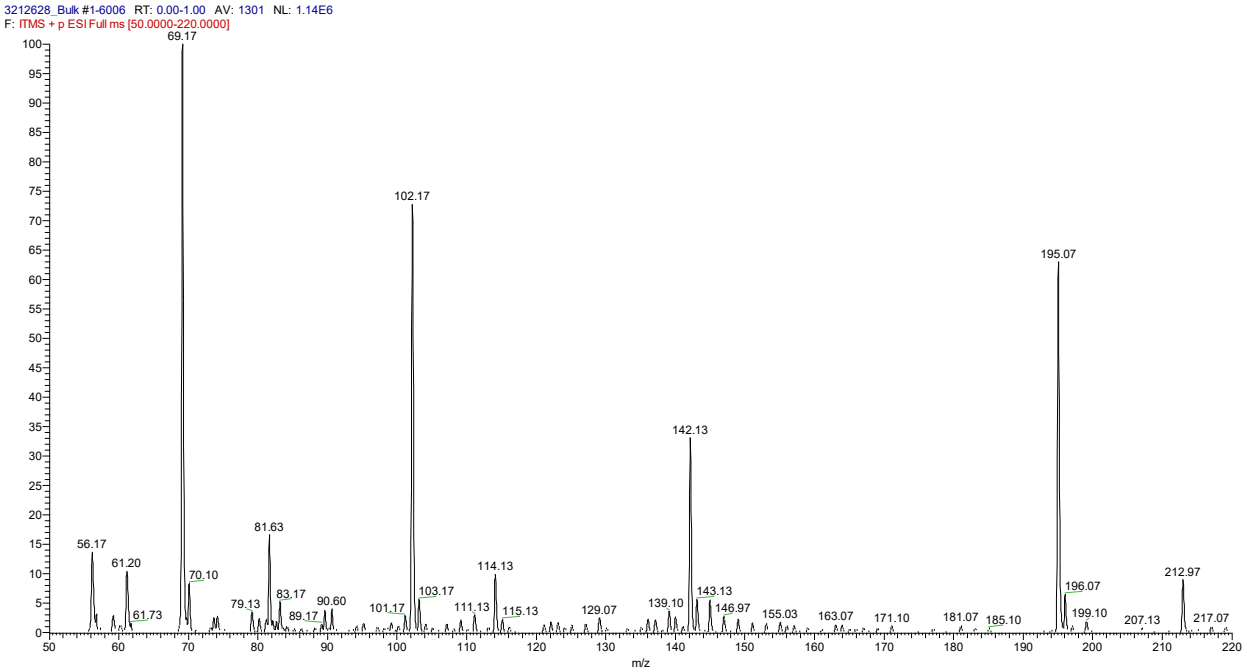
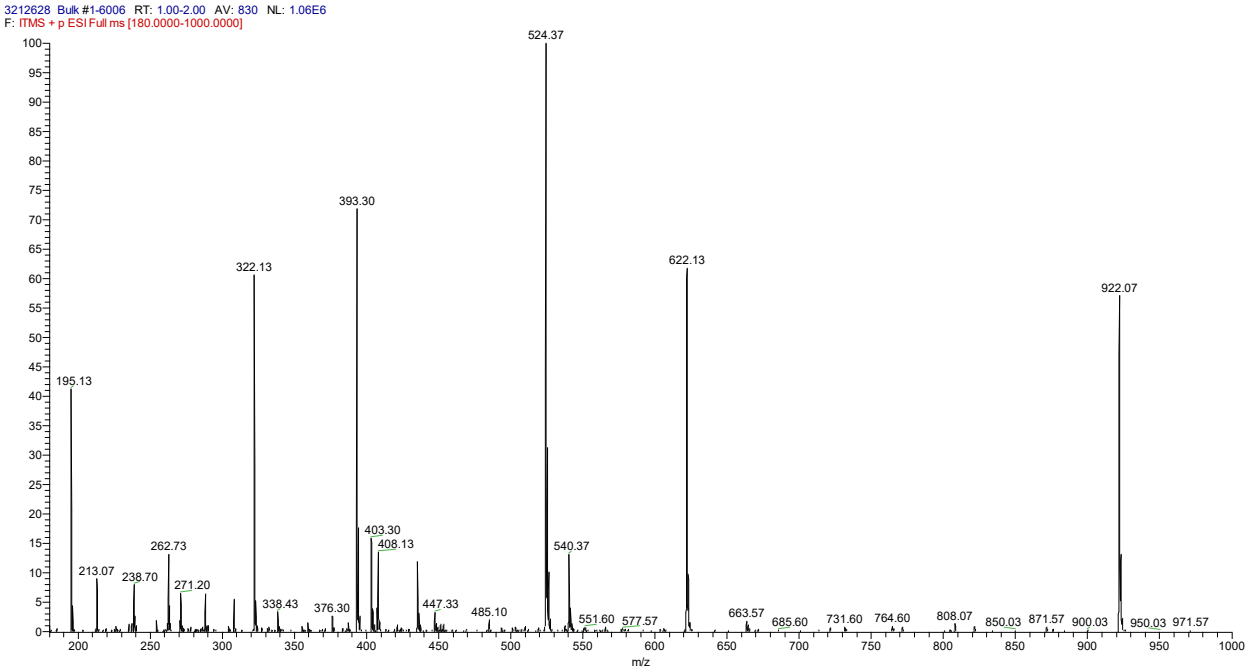
Positive Ion Mode (Ion Trap, Normal Scan Mode), 50-220 m/z



Positive Ion Mode (Ion Trap, Normal Scan Mode), 180-1000 m/z



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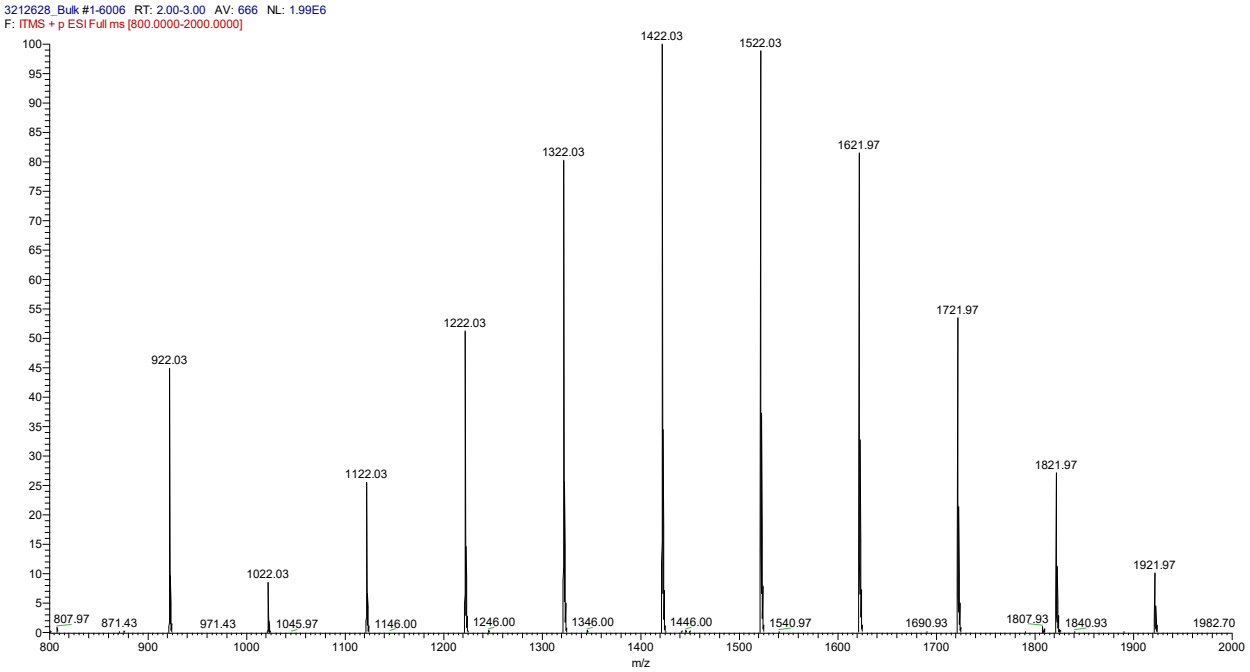
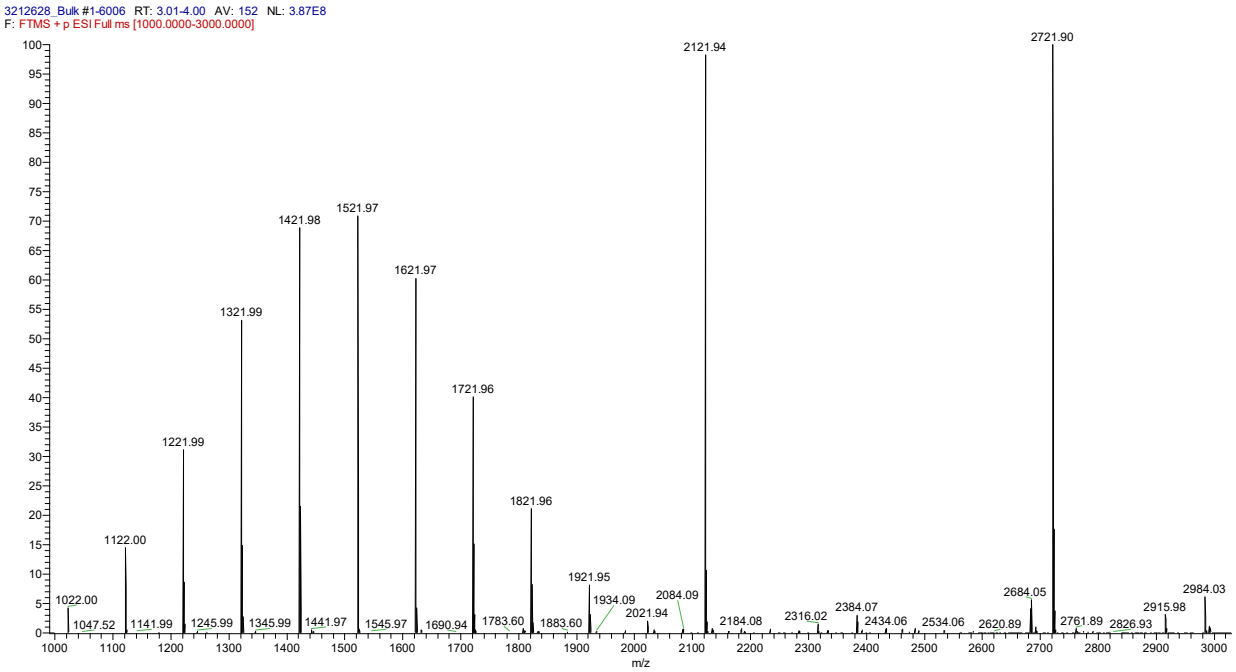
Positive Ion Mode (Ion Trap, Normal Scan Mode), 800-2000 m/z



Positive Ion Mode (Orbitrap, High Scan Mode), 1000-3000 m/z



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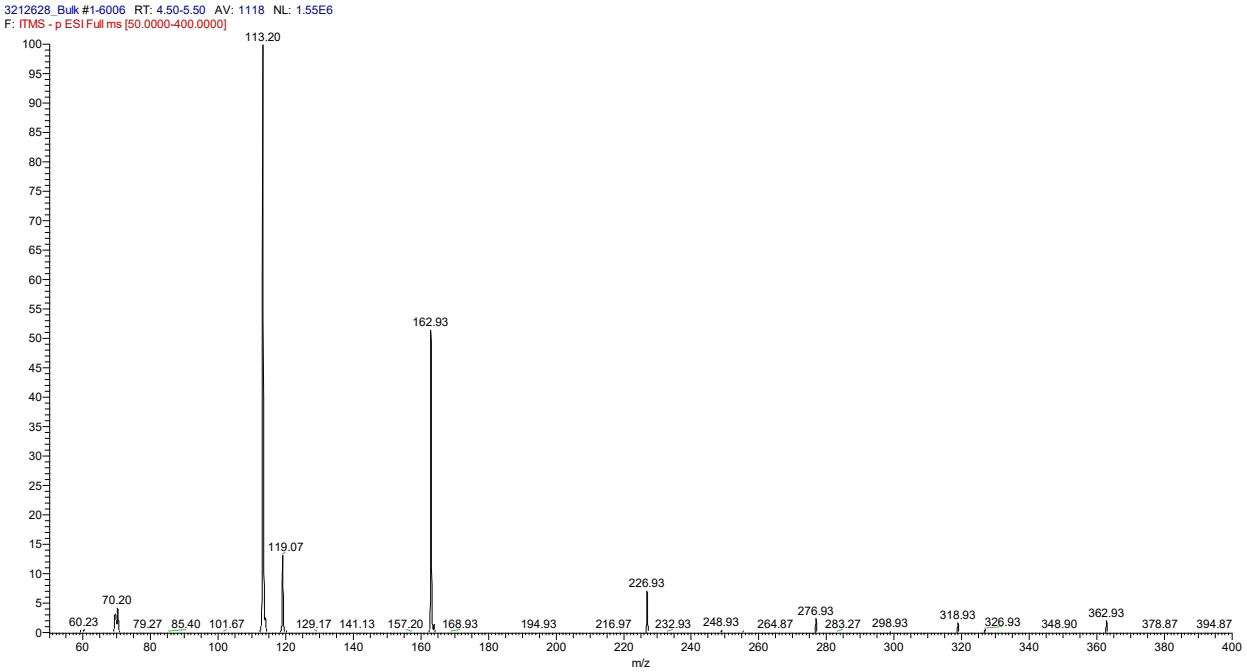
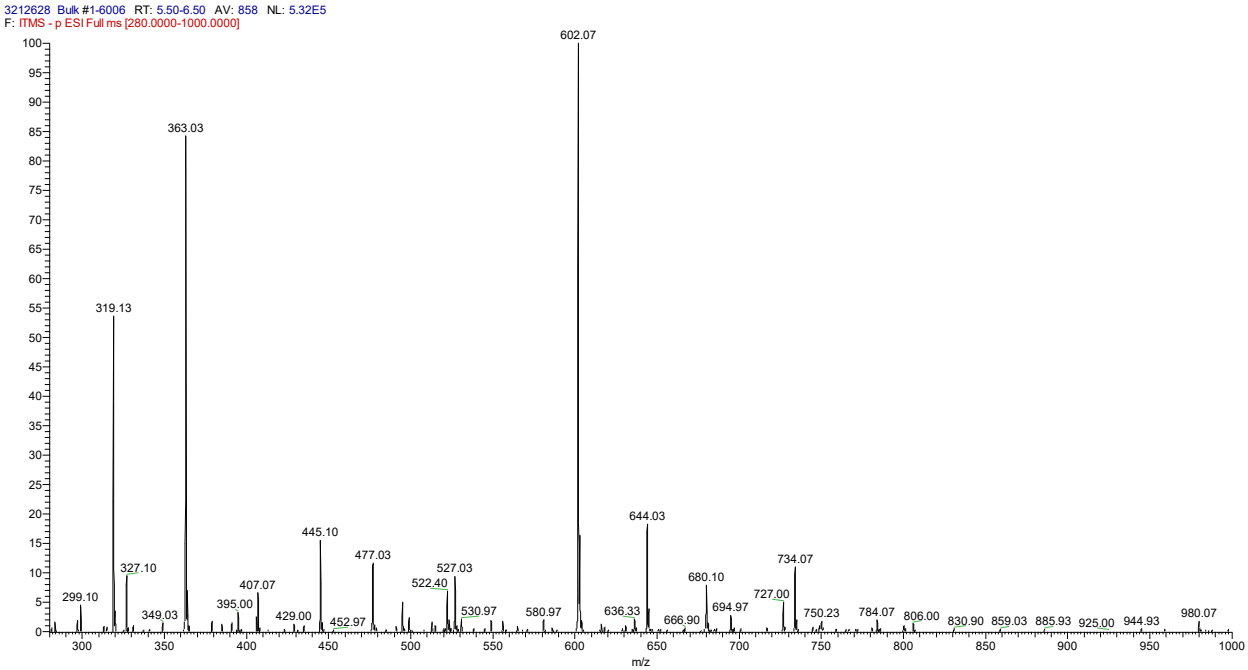
Negative Ion Mode (Ion Trap, Normal Scan Mode), 50-400 m/z



Negative Ion Mode (Ion Trap, Normal Scan Mode), 280-1000 m/z



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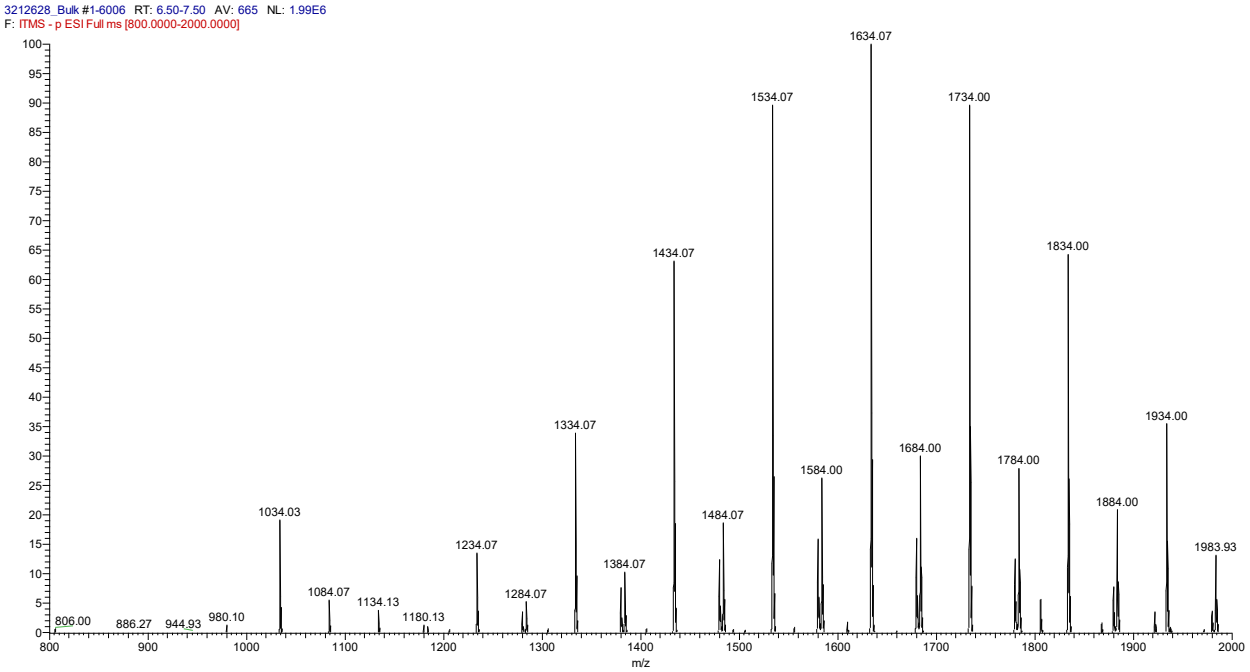
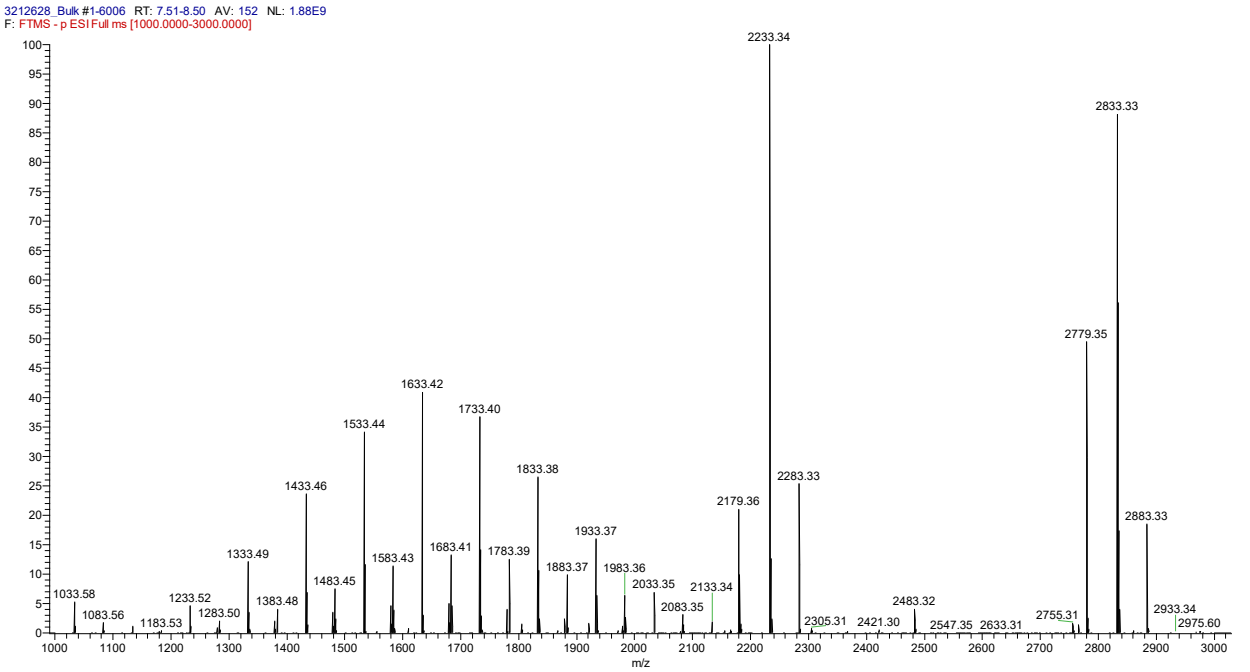
Negative Ion Mode (Ion Trap, Normal Scan Mode), 800-2000 m/z



Negative Ion Mode (Orbitrap, High Scan Mode), 1000-3000 m/z



Spectra were acquired on a Thermo Scientific™ Orbitrap Eclipse Mass Spectrometer

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