



ThermoFisher
S C I E N T I F I C

TMT/TMTpro Instrument Acquisition

The world leader in serving science

LC Method: EASY-Spray™ C18 50cm column & UltiMate™ 3000 RSLCnano UHPLC

120 min gradient

No	Time	Flow [µl/min]	%B	Curve
1	0.000		Equilibration	
2	0.000	0.300	2.0	5
3	<i>New Row</i>			
4	0.000		Run	
5	14.000	0.300	2.0	5
6	17.000	0.300	4.0	5
7	100.000	0.300	16.0	5
8	145.000	0.300	25.0	5
9	150.000	0.300	85.0	5
10	158.000	0.300	85.0	5
11	160.000	0.300	4.0	5
12	<i>New Row</i>			
13	185.000		Stop Run	

Solvent A: 0.1% formic acid
Solvent B: 100 % Acetonitrile, 0,1% formic acid
Flow rate: 300 nL/min
Injection volume: 1-2 µL

Direct injection



LC Method: EASY-Spray™ C18 50cm column & UltiMate™ 3000 RSLCnano UHPLC

Loading pump conditions

Time(min)	Flow, ul/min
0	20
100, 185	20

120 min gradient

No	Time	Flow [µl/min]	%B	Curve
1	0.000		Equilibration	
2	0.000	0.300	2.0	5
3	<i>New Row</i>			
4	0.000		Run	
5	14.000	0.300	2.0	5
6	17.000	0.300	4.0	5
7	100.000	0.300	16.0	5
8	145.000	0.300	25.0	5
9	150.000	0.300	85.0	5
10	158.000	0.300	85.0	5
11	160.000	0.300	4.0	5
12	<i>New Row</i>			
13	185.000		Stop Run	



Solvent A: 0.1% formic acid
Solvent B: 100 % Acetonitrile, 0,1% formic acid
Flow rate: 300 nL/min
Injection volume: 1-2 µL

Trap loading



LC Method using EASY-Spray™ C18 50cm column & EASY-nLC™ 1200 HPLC

120 min

Time (min)	Flow(nL/min)	%B
0	300	5
110	300	25
120	300	40
130	300	95
140	300	95



Solvent A: 0.1% formic acid
Solvent B: 80 % Acetonitrile, 0,1% formic acid
Flow rate: 300 nL/min
Injection volume: 1-2 µL



LC Method using EASY-Spray™ C18 50cm column & EASY-nLC™ 1000 HPLC

120 min

Time (min)	Flow(nL/min)	%B
0	300	5
5	300	7
120	300	32
130	300	90
140	300	90



Solvent A: 0.1% formic acid
Solvent B: 100 % Acetonitrile, 0,1% formic acid
Flow rate: 300 nL/min
Injection volume: 1 µL



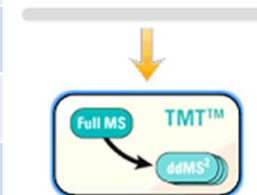
Instrument Method Settings: QExactive Classic and QExactive Plus

Properties	QE classic 120 min TMT 11 plex	QE classic 120 min TMTpro 16 plex	QE + 120 min TMT 11 plex	QE + 120 min TMTpro 16 plex
Resolution Full MS	70000	70000	70000	70000
AGC target Full MS	3e6	3e6	3e6	3e6
MS max IT, ms	50	50	50	50
Scan range, <i>m/z</i>	350-1500	350-1500	350-1500	350-1500
Loop count	15	10	15	10
MS2 resolution	35000	35000	35000	35000
MS2 AGC target	1e5	2e5	1e5	2e5
MS2 max IT, ms	250 ms	250 ms	120 ms	120 ms
Isolation Window , Th	1.2	1.2	0.7	0.7
NCE, %	32-34	28-32	32-34	28-32
Intensity threshold	1e4	2e4	1e4	2e4
Peptide match	preferred	preferred	preferred	preferred
Dynamic exclusion, s	45 s	45 s	30 s	30 s
First mass, <i>m/z</i>	110	110	110	110



Instrument Method Settings: QExactive HF and QExactive HF X

Properties	QE HF 120 min TMT 11 plex	QE HF 120 min TMTpro 16 plex	QE HF X 120 min TMT 11 plex	QE HF X 120 min TMTpro 16 plex
Resolution Full MS	120000	120000	120000	120000
AGC target Full MS	3e6	3e6	3e6	3e6
MS max IT, ms	50	50	50	50
Scan range, m/z	350-1500	350-1500	350-1500	350-1500
Loop count	15	15	15	15
MS2 resolution	60000(2.9- 45000)	60000(2.9- 45000)	45000	45000
MS2 target	1e5	1.2e5	1e5	1.2e5
MS2 max IT, ms	120	120	96	120
Isolation Window, Th	0.7 m/z	0.7 m/z	0.7 m/z	0.7 m/z
NCE, %	32-34	28-32	32-34	28-32
Intensity threshold	1e4	1.5e4	1e4	1e4
Peptide match	preferred	preferred	preferred , single charge	preferred , single charge
Dynamic exclusion, s	30	30	30	30
First mass, m/z	110	110	110	110



Tune 2.10
and higher

Instrument Method Settings: Fusion (Tune 3.3)

Properties	Fusion SPS 120 min TMT 11 plex	Fusion SPS 120 min TMTpro 16 plex	Fusion MS2 120 min TMT 11 plex	Fusion MS2 120 min TMT pro 16 plex
Resolution Full MS	120000	120000	120000	120000
AGC target Full MS	4e5	4e5	4e5	4e5
MS max IT, ms	50	50	50	50
Scan range, m/z	400-1400	400-1400	400-1400	400-1400
Top Speed, s	3	3	3	3
MS2 max IT, ms	50	50	120	120
MS2 Isolation window, Th	1.2(2)-0.7(3)-0.5 (4+)	1.2(2)-0.7(3)-0.5 (4+)	0.7(2-3)-0.5 (4+)	0.7
MS2 NCE, %	35	35	38-40	35
MS2 Intensity threshold	5e3	5e3	5e4	5e4
Dynamic exclusion, s	60, single charge	60, single charge	60, single charge	60, single charge
MS2 Resolution	turbo	rapid	50000	50000
MS2 AGC target	1e4	1e4	1e5	1.2e5
MS3 AGC target	1e5	1.2e5		
SPS Isolation window, Th	1.3(2)-0.7(3)-0.5 (4+)	1.3(2)-0.7(3)-0.5 (4+)		
SPS NCE, %	65	55		
SPS max IT, ms	120	120		
SPS settings: # notches, mass range, Tag Exclusion	5-10-10, m/z 110-500, TMT	5-10-10, m/z 110-500, TMTpro	m/z 110	m/z 110

**Fit Filter:
70+**

APD on

Instrument Method Settings: Lumos (Tune 3.3)

Properties	SPS 120 min TMT 11plex	SPS 120 min TMT pro 16 plex	MS2 120 min TMT 11plex	MS2 120 min TMTpro 16 plex
Resolution Full MS	120000	120000	120000	120000
AGC target Full MS	100%(4e5)	100%(4e5)	100%(4e5)	100%(4e5)
MS max IT, ms	50	50	50	50
Scan range, m/z	400-1400	400-1400	400-1400	400-1400
Top Speed, s	3	3	3	3
MS2 max IT, ms	50	50 (custom)	105	120
MS2 Isolation window, Th	1.2(2)-0.7(3)-0.5 (4+)	0.7	0.7(2-3)-0.5 (4+)	0.7
MS2 NCE, %	35	30	38-40	35
MS2 Intensity threshold	5e3	5e3	5e4	5e4
Dynamic exclusion, s	60, single charge	60, single charge	60, single charge	60, single charge
MS2 Resolution	turbo	rapid	50000	50000
MS2 AGC target	100%(1e4)	100%(1e4)	200%(1e5)	200%(1e5)
MS3 AGC target	200%(1e5)	200%(1e5)		
SPS Isolation window, Th	1.3(2)-0.7(3)-0.5 (4+)	0.7		
SPS NCE, %	65	55		
SPS max IT, ms	105 (custom)	120 (custom)		
SPS settings: # notches, mass range, Tag Exclusion	5-10-10 <i>m/z</i> 110-500, TMT	10 <i>m/z</i> 110-500, TMTpro	<i>m/z</i> 110	<i>m/z</i> 110

**Fit Filter:
70+**

APD on

**FAIMS:
CV-50/-70
1.5 sec/CV**

Instrument Method Settings: Eclipse (Tune 3.3)

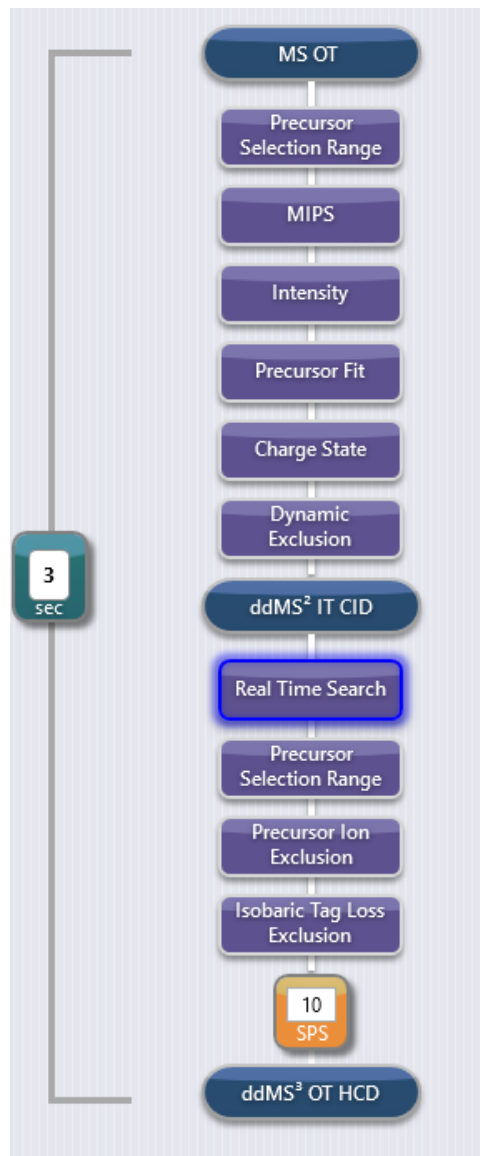
Properties	SPS 120 min TMT 11plex	SPS 120 min TMT pro 16 plex	MS2 120 min TMT 11plex	MS2 120 min TMTpro 16 plex
Resolution Full MS	120000	120000	120000	120000
AGC target Full MS	100%(4e5)	100%(4e5)	100%(4e5)	100%(4e5)
MS max IT, ms	50	50	50	50
Scan range, m/z	400-1400	400-1400	400-1400	400-1400
Top Speed, s	3	3	3	3
MS2 max IT, ms	50	50 (custom)	105	120
MS2 Isolation window, Th	1.2(2)-0.7(3)-0.5 (4+)	0.7	0.7(2-3)-0.5 (4+)	0.7
MS2 NCE, %	35	30	38-40	35
MS2 Intensity threshold	5e3	5e3	5e4	5e4
Dynamic exclusion, s	60, single charge	60, single charge	60, single charge	60, single charge
MS2 Resolution	turbo	rapid	50000	50000
MS2 AGC target	100%(1e4)	100%(1e4)	200%(1e5)	200%(1e5)
MS3 AGC target	200%(1e5)	200%(1e5)		
SPS Isolation window, Th	1.3(2)-0.7(3)-0.5 (4+)	0.7		
SPS NCE, %	65	55		
SPS max IT, ms	105 (custom)	120 (custom)		
SPS settings: # notches, mass range, Tag Exclusion	5-10-10 <i>m/z</i> 110-500, TMT	10 <i>m/z</i> 110-500, TMTpro	<i>m/z</i> 110	<i>m/z</i> 110

**Fit Filter:
70+**

APD on

**FAIMS:
CV-50/-70
1.5 sec/CV**

Instrument Method Settings: Eclipse (Tune 3.3)



Real Time Search Properties

FASTA Database:

Enzyme:

Static Modifications

	Modification Name	Δ Mass	Sites
1	Carbamidomethyl	57.0215	C
2	TMTpro16plex	304.2071	Kn

Variable Modifications

	Modification Name	Δ Mass	Sites
1	Oxidation	15.9949	M

Maximum Missed Cleavages:

Maximum Variable Mods / Peptide:

EXTENDED PROPERTIES...

with RTS



EXTENDED PROPERTIES...

Use as a Trigger Only:

SPS Mode:

Maximum Search Time (ms):

Scoring Thresholds

	Xcorr	dCn	Precursor PPM	Charge State
1	1	0	15	1

Protein Filter

Keyword	Promote/Reject
---------	----------------

EXTENDED PROPERTIES...

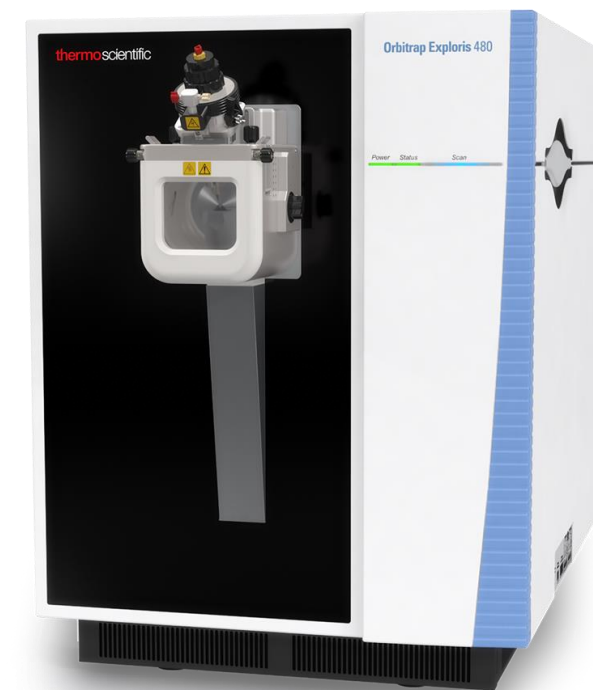
Instrument Method Settings: Exploris 480 (Tune 1.1)

Properties	MS2 120 min TMT 11plex	MS2 120 min TMTpro 16 plex
Resolution Full MS	120000	120000
AGC target Full MS	100%(4e5)	100%(4e5)
MS max IT, ms	50	50
Scan range, m/z	400-1400	400-1400
Top Speed, s	3	3
MS2 max IT, ms	105	120
MS2 Isolation window, Th	0.7(2-3)-0.5 (4+)	0.7
MS2 NCE, %	38-40	32
MS2 Intensity threshold	5e4	5e4
Dynamic exclusion, s	60, single charge	60, single charge
MS2 Resolution	50000	50000
MS2 AGC target	200%(1e5)	200%(1e5)
First mass	<i>m/z 110</i>	<i>m/z 110</i>
SPS Isolation window, Th		
SPS NCE, %		
SPS max IT, ms		

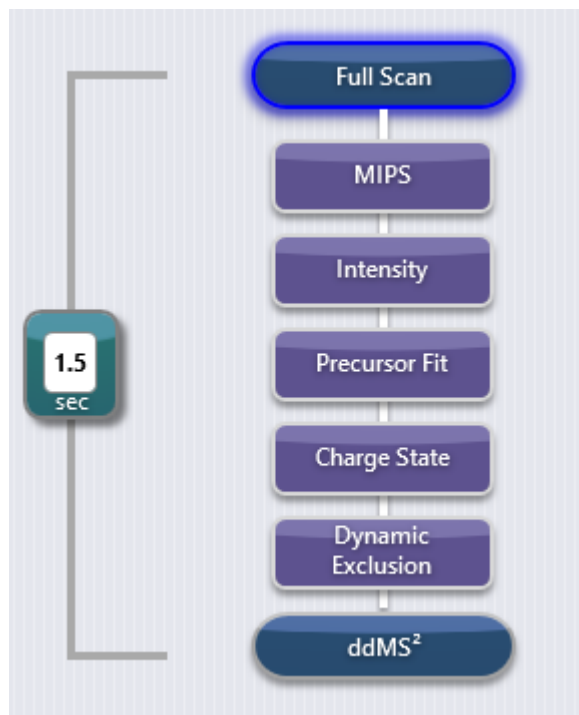
**Fit Filter:
70+**

APD on

**FAIMS:
CV-50/70
1.5 sec/CV**



Instrument Method Settings: Exploris 480 (Tune 1.1)



Full Scan Properties	
Orbitrap Resolution	60000
Scan Range (m/z)	375-1575
FAIMS Voltages	On
FAIMS CV (V)	-50
RF Lens (%)	40
AGC Target	Custom
Normalized AGC Target (%)	300
Maximum Injection Time Mode	Custom
Maximum Injection Time (ms)	50
Microscans	1
Data Type	Profile
Polarity	Positive
Source Fragmentation	<input type="checkbox"/>
Scan Description	-50 CV