

Spot no. 3, FIGURE 3D

MS/MS Fragmentation of **VDVDELATVAK**

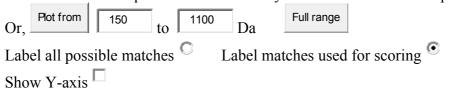
Found in gi|11135129 in NCBInr, RecName: Full=Thioredoxin H-type; Short=Trx-H

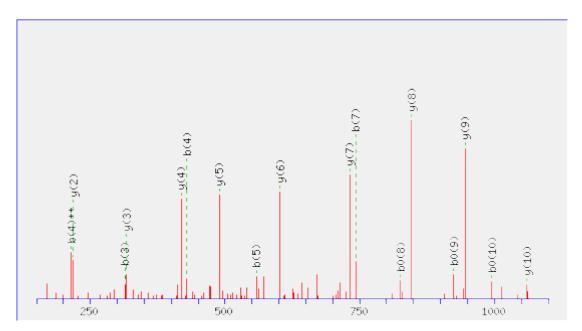
Match to Query 90: 1159.545448 from(580.780000,2+) intensity(4787326.0000) index(8)

Title: Cmpd 9, +MSn(580.6), 28.3 min

Data file DU-JAS-FT-1.mgf

Click mouse within plot area to zoom in by factor of two about that point





Monoisotopic mass of neutral peptide Mr(calc): 1158.6132

Fixed modifications: Carbamidomethyl (C) (apply to specified residues

or termini only)

Ions Score: 106 Expect: 1.3e-07

Matches: 18/92 fragment ions using 18 most intense peaks



Spot no. 6, FIGURE 3D

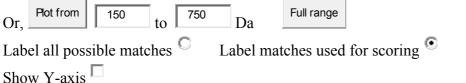
MS/MS Fragmentation of LATGEPLR Found in gi|326514010 in NCBInr, predicted protein [Hordeum vulgare subsp. vulgare]

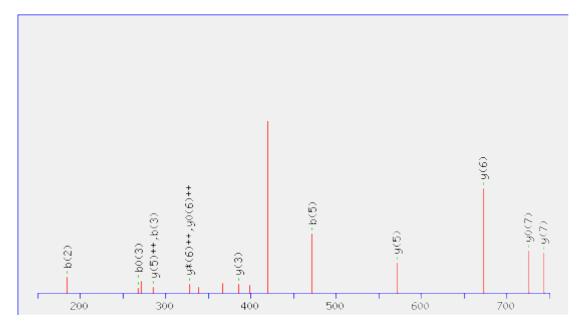
Match to Query 33: 855.505448 from(428.760000,2+) intensity(4294990.0000) index(5)

Title: Cmpd 6, +MSn(429.0), 23.3 min

Data file DU-JAS-FT4.mgf

Click mouse within plot area to zoom in by factor of two about that point





Monoisotopic mass of neutral peptide Mr(calc): 855.4814

Fixed modifications: Carbamidomethyl (C) (apply to specified residues or termini only)

Ions Score: 36 Expect: 1.6

Matches: 12/60 fragment ions using 13 most intense peaks (help)



Spot no. 7, FIGURE 3D

MS/MS Fragmentation of IVMGLFGEVVPK

Found in **gi|297817542** in **NCBInr**, hypothetical protein ARALYDRAFT_486711 [Arabidopsis lyrata subsp. lyrata]

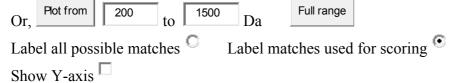
Match to Query 161: 1304.865448 from(653.440000,2+) intensity(959316.0000)

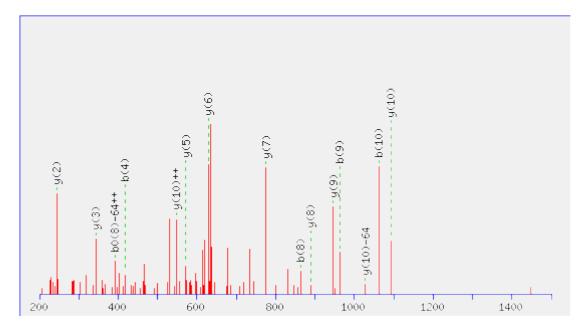
index(76)

Title: Cmpd 77, +MSn(654.6), 36.7 min

Data file DU-JAS-FT3.mgf

Click mouse within plot area to zoom in by factor of two about that point





Monoisotopic mass of neutral peptide Mr(calc): 1303.7210 Fixed modifications: Carbamidomethyl (C) (apply to specified residues or termini only)

Variable modifications:

 ${\tt M3}$: Oxidation (M), with neutral losses 0.0000(shown in table), 63.9983

Ions Score: 52 Expect: 0.03

Matches: 15/126 fragment ions using 27 most intense peaks



Spot no. 10, FIGURE 3D

MS/MS Fragmentation of **GYAIGTDAPGR**

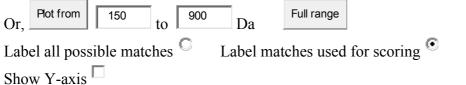
Found in **gi**|127733 in **NCBInr**, RecName: Full=Myrosinase; AltName: Full=Sinigrinase; AltName: Full=Thioglucosidase; Flags: Precursor

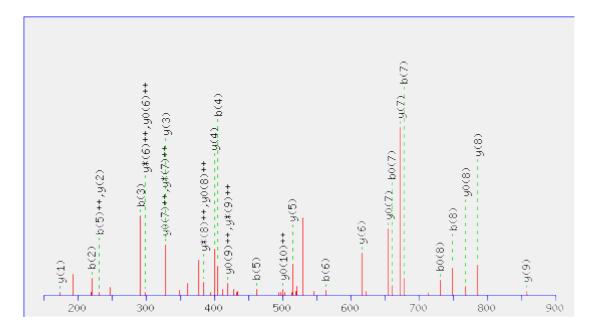
Match to Query 57: 1076.885448 from(539.450000,2+) intensity(2724479.0000) index(1)

Title: Cmpd 2, +MSn(539.4), 20.7 min

Data file DU-JAS-FT-7.mgf

Click mouse within plot area to zoom in by factor of two about that point





Monoisotopic mass of neutral peptide Mr(calc): 1076.5251

Fixed modifications: Carbamidomethyl (C) (apply to specified residues

or termini only)

Ions Score: 79 Expect: 6.9e-05

Matches: 30/82 fragment ions using 36 most intense peaks (help)



Spot no. 12, FIGURE 3D

MS/MS Fragmentation of **SQVVGYMGDDNLAK**

Found in gi|2497857 in NCBInr, RecName: Full=Malate dehydrogenase,

mitochondrial; Flags: Precursor

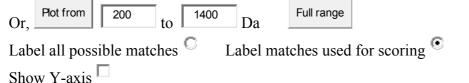
Match to Query 135: 1495.865448 from(748.940000,2+) intensity(1751198.0000)

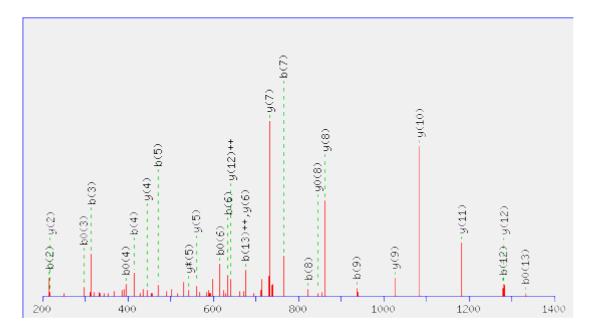
index(7)

Title: Cmpd 8, +MSn(749.2), 24.5 min

Data file DU-JAS-FT-6.mgf

Click mouse within plot area to zoom in by factor of two about that point





Monoisotopic mass of neutral peptide Mr(calc): 1495.6977

Fixed modifications: Carbamidomethyl (C) (apply to specified residues

or termini only)

Ions Score: 71 Expect: 0.00042

Matches: 27/146 fragment ions using 44 most intense peaks (help)



Spot no. 13, FIGURE 3D

MS/MS Fragmentation of LDSIGLENTEANR Found in gi 18420348 in NCBInr, fructose-bisphosphate aldolase, class I [Arabidopsis thaliana]
Match to Query 110: 1430.716090 from(716.365321,2+) index(109) Title: File: 130406 3026E.wiff, Sample: 130406 3026E (sample number 1), Elution: 17.254 min, Period: 1, Cycle(s): 3259 (Experiment 2) Data file DU-JAS-FT2.mgf
Click mouse within plot area to zoom in by factor of two about that point Or, Plot from 100 to 1400 Da Label all possible matches Label matches used for scoring Show Y-axis
Error: try setting browser cache to automatic.

Monoisotopic mass of neutral peptide Mr(calc): 1430.7001

Fixed modifications: Carbamidomethyl (C) (apply to specified residues or termini only)

Ions Score: 95 Expect: 2.4e-06

Matches: 19/122 fragment ions using 26 most intense peaks (help)



Spot no. 2, FIGURE 5B

MS/MS Fragmentation of IANQELGGKITR
Found in gi|157890952 in NCBInr, putative lactoylglutathione lyase [Brassica rapa]

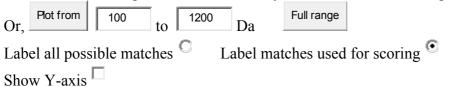
Match to Query 185: 1298.759960 from(650.387256,2+) index(184)

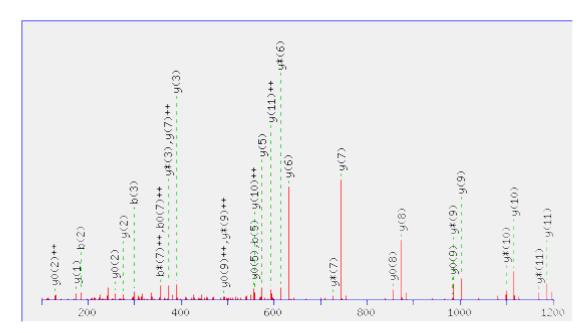
Title: File: 130406 3026I.wiff, Sample: 130406 3026I (sample number 1), Elution:

14.903 min, Period: 1, Cycle(s): 2657 (Experiment 2)

Data file F2079099.mgf

Click mouse within plot area to zoom in by factor of two about that point





Monoisotopic mass of neutral peptide Mr(calc): 1298.7306

 $\textbf{Fixed modifications:} \ \textbf{Carbamidomethyl} \ \ \textbf{(C)} \ \ \ \textbf{(apply to specified residues}$

or termini only)

Ions Score: 84 Expect: 7.9e-06

Matches: 31/118 fragment ions using 44 most intense peaks (help)



Spot no. 4, FIGURE 5B

MS/MS Fragmentation of **NGGIDTEEDYPYK**Found in **gi**|219687002 in **NCBInr**, daikon cysteine protease RD21 [Raphanus sativus]

Match to Query 183: 1499.682780 from(750.848666,2+) index(182)

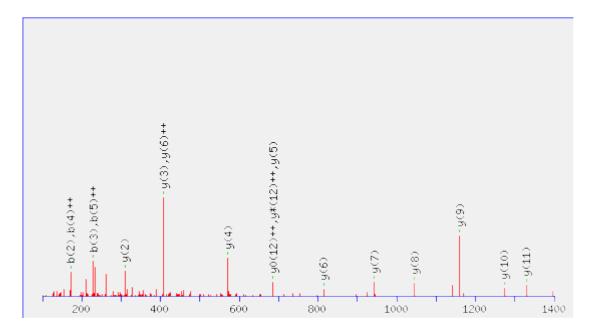
Title: File: 130406 3026G.wiff, Sample: 130406 3026G (sample number 1), Elution:

16.037 min, Period: 1, Cycle(s): 2850 (Experiment 2)

Data file F207900.mgf

Click mouse within plot area to zoom in by factor of two about that point

Or,	Plot from	100	to 1400	Da	Full range		
Label all possible matches ©			Label ma	tches used	for scoring ©		
Sho	w Y-axis						



Monoisotopic mass of neutral peptide Mr(calc): 1499.6416

Fixed modifications: Carbamidomethyl (C) (apply to specified residues

or termini only)

Ions Score: 105 Expect: 6e-08

Matches: 17/128 fragment ions using 13 most intense peaks (help)

MATRIX Mascot Search Results

Peptide View

Spot no. 5, FIGURE 5B

MS/MS Fragmentation of **TNAENEFVTIK**Found in **gi|205830697** in **NCBInr**, RecName: Full=Unknown protein 18

Match to Query 125: 1264.654460 from(633.334506,2+) index(124)

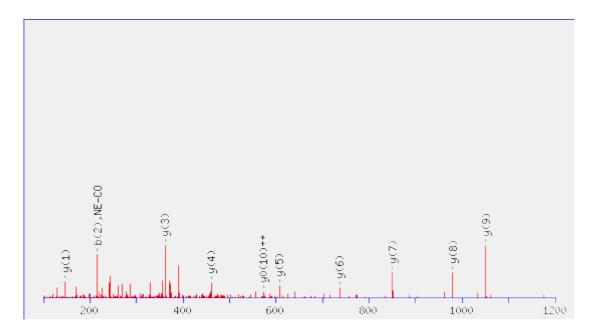
Title: File: 130406 3026H.wiff, Sample: 130406 3026H (sample number 1), Elution:

18.454 min, Period: 1, Cycle(s): 3051 (Experiment 3)

Data file F207901.mgf

Click mouse within plot area to zoom in by factor of two about that point

Or, Plot f	rom 100	to [1200	Da	Full range	•	
Label all possible matches [©]			La	bel mat	ches used	for scoring ©	
Show Y-	axis \square						



Monoisotopic mass of neutral peptide Mr(calc): 1264.6299

Fixed modifications: Carbamidomethyl (C) (apply to specified residues

or termini only)

Ions Score: 80 Expect: 6.5e-05

Matches: 12/182 fragment ions using 11 most intense peaks (help)

Matrix Mascot Search Results

Peptide View

Spot no. 7, FIGURE 5B

MS/MS Fragmentation of MEVATDEDFTPIK
Found in gi 15242465 15242465 FREE in NCBInr, soluble inorganic pyrophosphatase 1 [Arabidopsis thaliana]
Match to Query 215: 1510.727682 from(756.371117,2+) index(214) Title: File: 130406 3026J.wiff, Sample: 130406 3026J (sample number 1), Elution: 18.62 min, Period: 1, Cycle(s): 2871 (Experiment 4) Data file F207892.mgf
Click mouse within plot area to zoom in by factor of two about that point Or, Plot from 100 to 1400 Da Label all possible matches Label matches used for scoring Show Y-axis
Error: try setting browser cache to automatic.

```
Monoisotopic mass of neutral peptide Mr(calc): 1510.6861
Fixed modifications: Carbamidomethyl (C) (apply to specified residues
or termini only)
Variable modifications:
    : Oxidation (M), with neutral losses 0.0000(shown in table),
Ions Score: 90 Expect: 1.7e-06
Matches: 19/158 fragment ions using 32 most intense peaks (help)
```

MATRIX Mascot Search Results

Peptide View

Spot no. 8, FIGURE 5B

MS/MS Fragmentation of **TEETPAVVEEEK**Found in **gi**|9049359 in **NCBInr**, vacuolar calcium binding protein [Raphanus

Found in **gi**|9049359 in **NCBInr**, vacuolar calcium binding protein [Raphanus sativus]

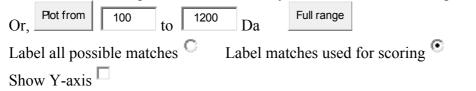
Match to Query 210: 1359.672444 from(680.843498,2+) index(209)

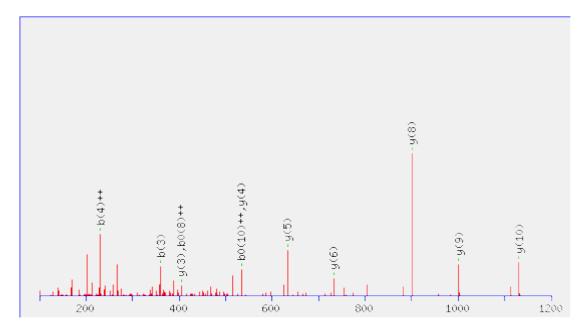
Title: File: 130406 3026F.wiff, Sample: 130406 3026F (sample number 1), Elution:

15.577 min, Period: 1, Cycle(s): 2728 (Experiment 2)

Data file F207898.mgf

Click mouse within plot area to zoom in by factor of two about that point





Monoisotopic mass of neutral peptide Mr(calc): 1359.6405

Fixed modifications: Carbamidomethyl (C) (apply to specified residues

or termini only)

Ions Score: 61 Expect: 0.0015

Matches: 12/108 fragment ions using 11 most intense peaks (help)

MATRIX Mascot Search Results

Peptide View

Spot no. 9, FIGURE 5B

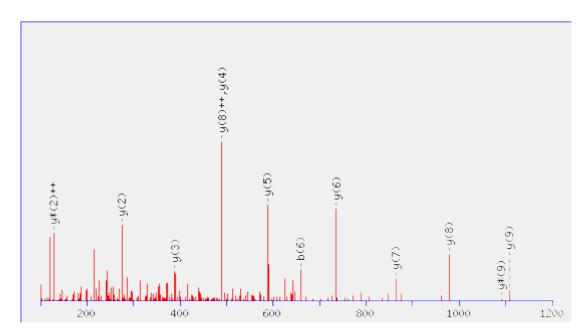
MS/MS Fragmentation of **TNAENEFVTIKK**Found in **gi|205830697** in **NCBInr**, RecName: Full=Unknown protein 18

Match to Query 147: 1392.719154 from(465.246994,3+) index(146)
Title: File: 130406 3026D.wiff, Sample: 130406 3026D (sample number 1), Elution: 16.689 to 16.89 min, Period: 1, Cycle(s): 3128 (Experiment 2), 3139 (Experiment 3) Data file F207896.mgf

Click mouse within plot area to zoom in by factor of two about that point Or, Plot from 100 to 1200 Da Full range

Label all possible matches Label matches used for scoring •

Show Y-axis



Monoisotopic mass of neutral peptide Mr(calc): 1392.7249

Fixed modifications: Carbamidomethyl (C) (apply to specified residues

or termini only)

Ions Score: 78 Expect: 3.4e-05

Matches: 12/124 fragment ions using 11 most intense peaks (help)



Spot no. 11, FIGURE 5B

MS/MS Fragmentation of **RPDYIK**

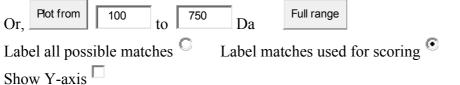
Found in **gi**|166700 in **NCBInr**, Fe-superoxide dismutase, partial [Arabidopsis thaliana]

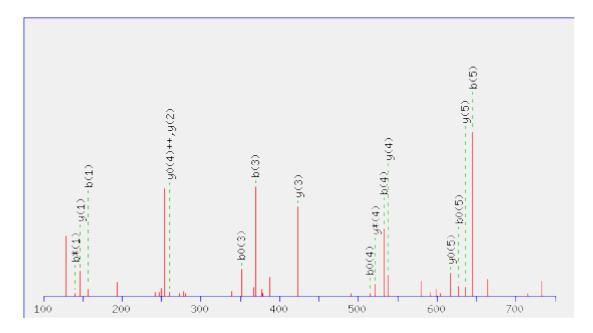
Match to Query 26: 790.525448 from(396.270000,2+) intensity(1705928.0000) index(0)

Title: Cmpd 1, +MSn(396.4), 19.4 min

Data file F207891.mgf

Click mouse within plot area to zoom in by factor of two about that point





Monoisotopic mass of neutral peptide Mr(calc): 790.4337

Fixed modifications: Carbamidomethyl (C) (apply to specified residues

or termini only)

Ions Score: 28 Expect: 5.3

Matches : 16/50 fragment ions using 31 most intense peaks (<u>help</u>)



Spot no. 12, FIGURE 5B

MS/MS Fragmentation of **LDSIGLENTEANR**Found in **gi|4539316** in **NCBInr**, putative fructose-bisphosphate aldolase [Arabidopsis thaliana]

Click mouse within plot area to zoom in by factor of two about that point

Match to Query 438: 1430.710234 from(716.362393,2+) index(437)
Title: File: 130406 3026C.wiff, Sample: 130406 3026C (sample number 1), Elution: 17.206 to 17.381 min, Period: 1, Cycle(s): 2684 (Experiment 6), 2688 (Experiment 7)
Data file F207895.mgf

Or, Plot from 100 to 1400 Da Full range				
Label all possible matches Label matches used for scoring •				
Show Y-axis				
Error: try setting browser cache to automatic.				

Monoisotopic mass of neutral peptide Mr(calc): 1430.7001

Fixed modifications: Carbamidomethyl (C) (apply to specified residues or termini only)

Ions Score: 94 Expect: 9.3e-07

Matches: 19/122 fragment ions using 32 most intense peaks (help)



Spot no. 14, FIGURE 5B

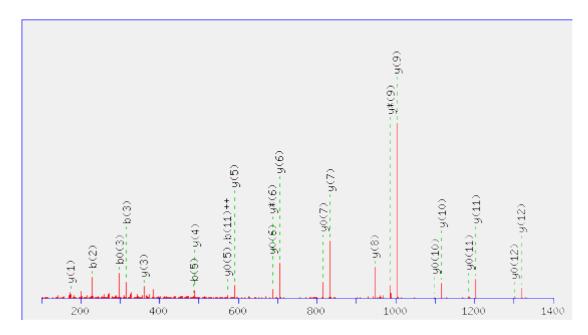
MS/MS Fragmentation of LDSIGLENTEANR
Found in gi|18420348 in NCBInr, fructose-bisphosphate aldolase, class I [Arabidopsis thaliana]

Match to Query 112: 1430.706752 from(716.360652,2+) index(111) Title: File: 130406 3026B.wiff, Sample: 130406 3026B (sample number 1), Elution: 17.333 to 17.873 min, Period: 1, Cycle(s): 3219, 3223 (Experiment 2), 3213, 3233 (Experiment 3)
Data file F207894.mgf

Click mouse within plot area to zoom in by factor of two about that point Or, Plot from 100 to 1400 Da Full range

Label all possible matches Label matches used for scoring •

Show Y-axis □



Monoisotopic mass of neutral peptide Mr(calc): 1430.7001 Fixed modifications: Carbamidomethyl (C) (apply to specified residues

or termini only)

Ions Score: 116 Expect: 5.1e-09

Matches: 24/122 fragment ions using 26 most intense peaks (help)



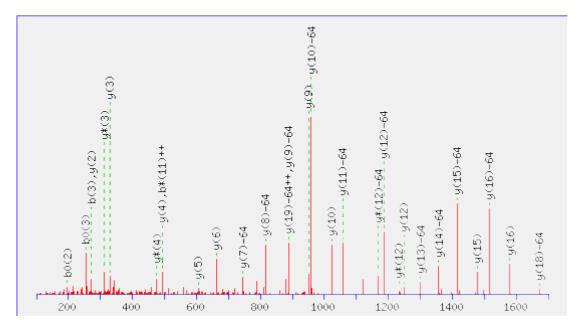
Spot no. 15, FIGURE 5B

MS/MS Fragmentation of LTGVTGGDQVAAAMGIYGPR Found in gi|297816906 in NCBInr, sedoheptulose-bisphosphatase [Arabidopsis lyrata subsp. lyrata]

Match to Query 103: 1948.988156 from(975.501354,2+) index(102)
Title: File: 130406 3026A.wiff, Sample: 130406 3026A (sample number 1), Elution: 19.553 to 19.598 min, Period: 1, Cycle(s): 3454-3455 (Experiment 3)
Data file F207893.mgf

Click mouse within plot area to zoom in by factor of two about that point Or, Plot from 100 to 1700 Da Full range

Label all possible matches C Label matches used for scoring Show Y-axis



Monoisotopic mass of neutral peptide Mr(calc): 1948.9677

Fixed modifications: Carbamidomethyl (C) (apply to specified residues or termini only)

Variable modifications:

M14 : Oxidation (M), with neutral losses 63.9983(shown in table), 0.0000

Ions Score: 134 Expect: 2.3e-10

Matches: 30/288 fragment ions using 31 most intense peaks (help)



SUPPLEMENTARY MATERIAL S1, Band no. 3

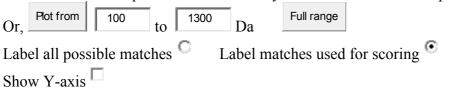
MS/MS Fragmentation of **SPLLLQSNPIHK**Found in **gi|87294807** in **NCBInr**, glutathione S-transferase [Brassica napus]

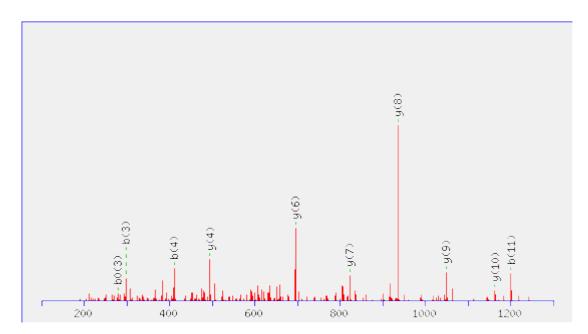
Match to Query 166: 1346.172724 from(674.093638,2+) index(248)

Title: RC-1-JASS-190309 090319140534.1796.1798.2.dta

Data file RC-1-JASS merge.mgf

Click mouse within plot area to zoom in by factor of two about that point





Monoisotopic mass of neutral peptide Mr(calc): 1345.7718

Fixed modifications: Carbamidomethyl (C) (apply to specified residues

or termini only)

Ions Score: 52 Expect: 0.019

Matches: 10/112 fragment ions using 11 most intense peaks

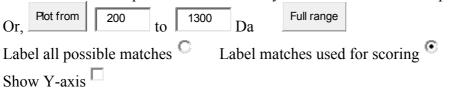


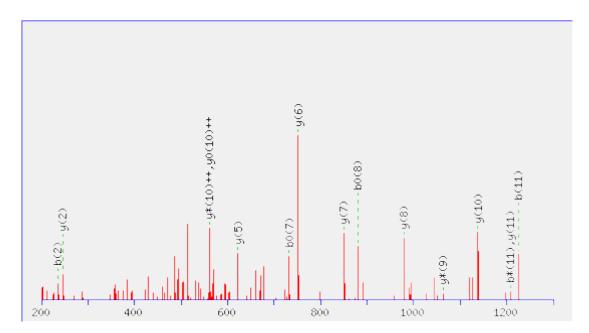
MS/MS Fragmentation of **YAGTEVEFNDVK**Found in **gi**|3057150 in **NCBInr**, chaperonin 10 [Arabidopsis thaliana]

Match to Query 178: 1371.282724 from(686.648638,2+) index(206) Title: RC-1-JASS-190309_090319140534.1726.1726.2.dta

Data file RC-1-JASS merge.mgf

Click mouse within plot area to zoom in by factor of two about that point





Monoisotopic mass of neutral peptide Mr(calc): 1370.6354

Fixed modifications: Carbamidomethyl (C) (apply to specified residues or termini only)

Ions Score: 49 Expect: 0.045

Matches: 15/106 fragment ions using 22 most intense peaks (help)



SUPPLEMENTARY MATERIAL S1, Band no. 3

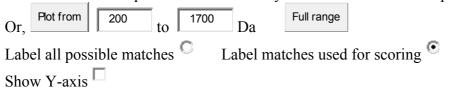
MS/MS Fragmentation of **VISELGDSAFEDQCGR**Found in **gi**|297787439 in **NCBInr**, chloroplast beta-carbonic anhydrase [Brassica napus]

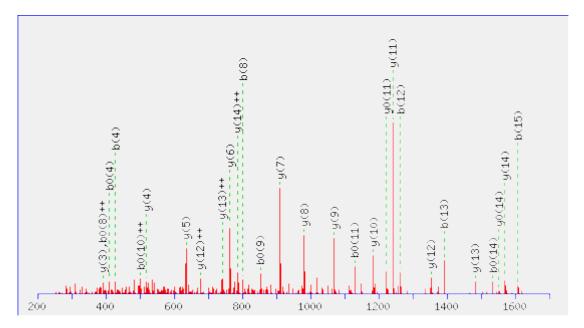
Match to Query 325: 1782.312724 from(892.163638,2+) index(259)

Title: RC-1-JASS-190309 090319140534.1820.1822.2.dta

Data file RC-1-JASS merge.mgf

Click mouse within plot area to zoom in by factor of two about that point





Monoisotopic mass of neutral peptide Mr(calc): 1781.7890 Fixed modifications: Carbamidomethyl (C) (apply to specified residues or termini only)

Ions Score: 82 Expect: 1.9e-05

Matches: 28/144 fragment ions using 56 most intense peaks (help)



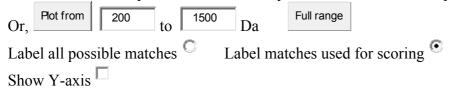
MS/MS Fragmentation of **FITKLDEEGGPEAR**Found in **gi**|211905345 in **NCBInr**, epithiospecifier protein [Brassica rapa subsp. pekinensis]

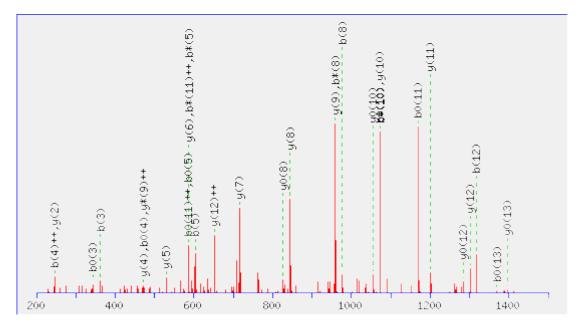
Match to Query 233: 1560.282724 from(781.148638,2+) index(224)

Title: RC-5-JAS-DU-190309.1622.1622.2.dta

Data file RC-5 JAS merge.mgf

Click mouse within plot area to zoom in by factor of two about that point





Monoisotopic mass of neutral peptide Mr(calc): 1560.7784

Fixed modifications: Carbamidomethyl (C) (apply to specified residues or termini only)

Ions Score: 74 **Expect:** 0.00013

Matches: 32/142 fragment ions using 36 most intense peaks (help)



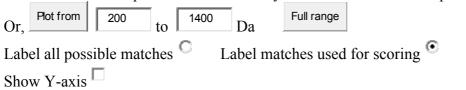
MS/MS Fragmentation of **LDSIGLENTEANR**Found in **gi**|16226653 in **NCBInr**, AT4g38970/F19H22_70 [Arabidopsis thaliana]

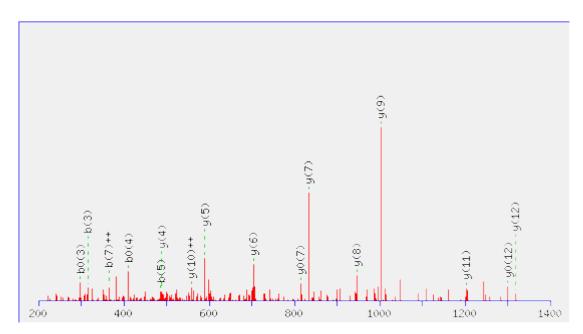
Match to Query 185: 1430.832724 from(716.423638,2+) index(237)

Title: RC-5-JAS-DU-190309.1642.1644.2.dta

Data file RC-5 JAS merge.mgf

Click mouse within plot area to zoom in by factor of two about that point





Monoisotopic mass of neutral peptide Mr(calc): 1430.7001

 $\textbf{Fixed modifications:} \ \textbf{Carbamidomethyl} \ \ \textbf{(C)} \ \ \ \textbf{(apply to specified residues}$

or termini only)

Ions Score: 47 Expect: 0.12

Matches: 16/122 fragment ions using 33 most intense peaks (help)



MS/MS Fragmentation of **VPTVDVSVVDLTVR**

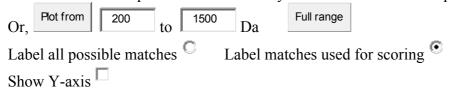
Found in **gi**|120675 in NCBInr, RecName: Full=Glyceraldehyde-3-phosphate dehydrogenase, cytosolic

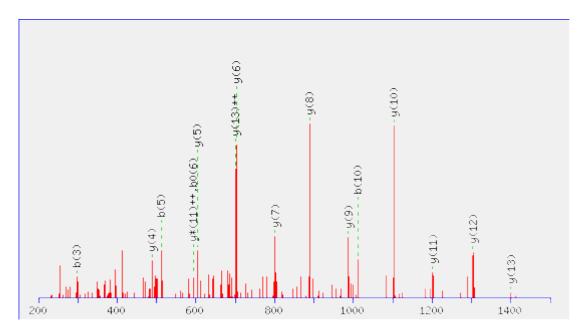
Match to Query 208: 1497.912724 from(749.963638,2+) index(439)

Title: RC-5-JAS-DU-190309.2033.2033.2.dta

Data file RC-5 JAS merge.mgf

Click mouse within plot area to zoom in by factor of two about that point





Monoisotopic mass of neutral peptide Mr(calc): 1497.8403 Fixed modifications: Carbamidomethyl (C) (apply to specified residues or termini only)

Ions Score: 75 **Expect:** 0.00015

Matches: 16/122 fragment ions using 24 most intense peaks (help)



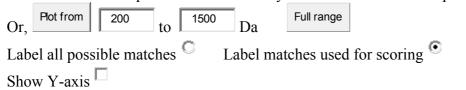
MS/MS Fragmentation of **VPTVDVSVVDLTVR**Found in **gi**|312282755 in **NCBInr**, unnamed protein product [Thellungiella halophila]

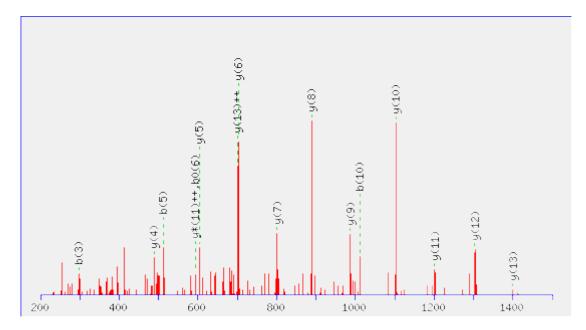
Match to Query 208: 1497.912724 from(749.963638,2+) index(439)

Title: RC-5-JAS-DU-190309.2033.2033.2.dta

Data file RC-5 JAS merge.mgf

Click mouse within plot area to zoom in by factor of two about that point





Monoisotopic mass of neutral peptide Mr(calc): 1497.8403

Fixed modifications: Carbamidomethyl (C) (apply to specified residues or termini only)

Ions Score: 75 **Expect:** 0.00015

Matches: 16/122 fragment ions using 24 most intense peaks (help)



MS/MS Fragmentation of **GIFTNVTSPTAK**

Found in **gi|297816906** in **NCBInr**, sedoheptulose-bisphosphatase [Arabidopsis lyrata subsp. lyrata]

Match to Query 89: 1234.745448 from(618.380000,2+) intensity(4842240.0000) index(9)

Title: Cmpd 10, +MSn(618.6), 26.1 min

Data file JAS RC 1merge.mgf

Click mouse within plot area to zoom in by factor of two about that point
Or, Plot from 200 to 1100 Da Full range
Label all possible matches Label matches used for scoring •
Show Y-axis
Error: try setting browser cache to automatic.

Monoisotopic mass of neutral peptide Mr(calc): 1234.6558

Fixed modifications: Carbamidomethyl (C) (apply to specified residues or termini only)

Ions Score: 70 Expect: 0.00065

Matches: 20/114 fragment ions using 31 most intense peaks (help)



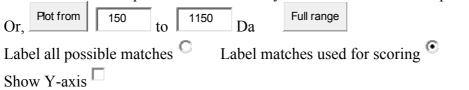
MS/MS Fragmentation of **GLEGHVMEQLK**Found in **gi|18379240** in **NCBInr**, MLP-like protein 328 [Arabidopsis thaliana]

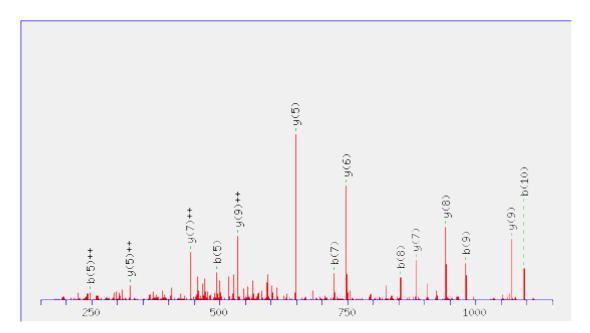
Match to Query 224: 1239.752724 from(620.883638,2+) index(141)

Title: RC-3-JAS-DU-190309.1671.1673.2.dta

Data file RC-3JASS merge.mgf

Click mouse within plot area to zoom in by factor of two about that point





Monoisotopic mass of neutral peptide Mr(calc): 1239.6281

 $\textbf{Fixed modifications:} \ \textbf{Carbamidomethyl} \ \ \textbf{(C)} \ \ \ \textbf{(apply to specified residues}$

or termini only)

Ions Score: 47 Expect: 0.099

Matches: 14/94 fragment ions using 20 most intense peaks (help)



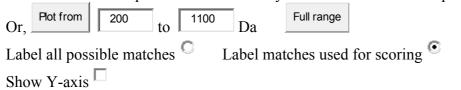
MS/MS Fragmentation of FVEDTASSFSVA

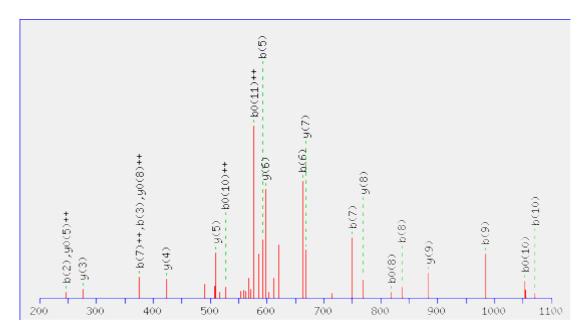
Found in **gi**|131390 in **NCBInr**, RecName: Full=Oxygen-evolving enhancer protein 2, chloroplastic; Short=OEE2; AltName: Full=23 kDa subunit of oxygen evolving system of photosystem II; AltName: Full=23 kDa thylakoid membrane protein; AltName: Full=OEC 23 kDa subunit; Flags: Precurso

Match to Query 172: 1258.565448 from(630.290000,2+) intensity(304450.0000) index(63)

Title: Cmpd 64, +MSn(630.8), 29.7 min Data file DU-JASMEET-RC-7.mgf

Click mouse within plot area to zoom in by factor of two about that point





Monoisotopic mass of neutral peptide Mr(calc): 1258.5718

Fixed modifications: Carbamidomethyl (C) (apply to specified residues

or termini only)

Ions Score: 76 **Expect:** 0.00015

Matches: 22/80 fragment ions using 24 most intense peaks



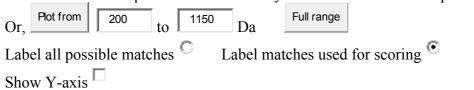
MS/MS Fragmentation of **HQLITATVSDGK**

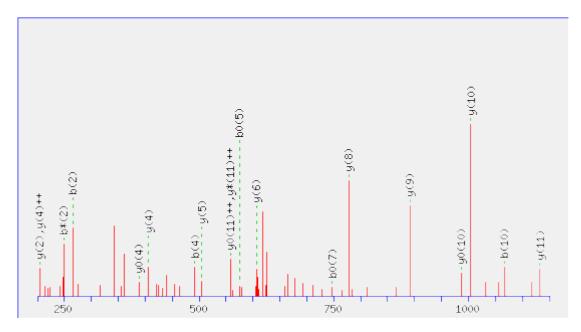
Found in **gi|242047384** in **NCBInr**, hypothetical protein SORBIDRAFT_02g002690 [Sorghum bicolor]

Match to Query 178: 1268.465448 from(635.240000,2+) intensity(270343.0000) index(2)

Title: Cmpd 3, +MSn(635.8), 22.5 min Data file DU-JASMEET-RC-7.mgf

Click mouse within plot area to zoom in by factor of two about that point





Monoisotopic mass of neutral peptide Mr(calc): 1268.6725

Fixed modifications: Carbamidomethyl (C) (apply to specified residues or termini only)

Ions Score: 63 Expect: 0.0023

Matches: 19/118 fragment ions using 27 most intense peaks (help)