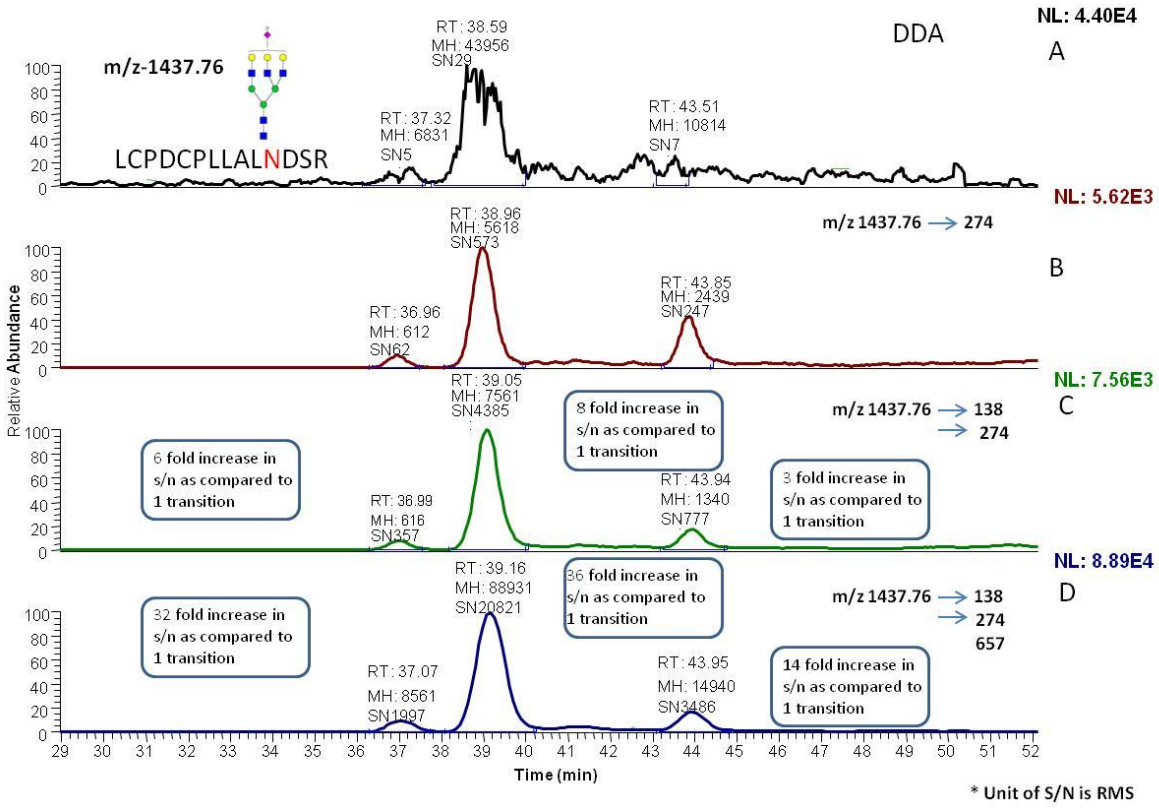
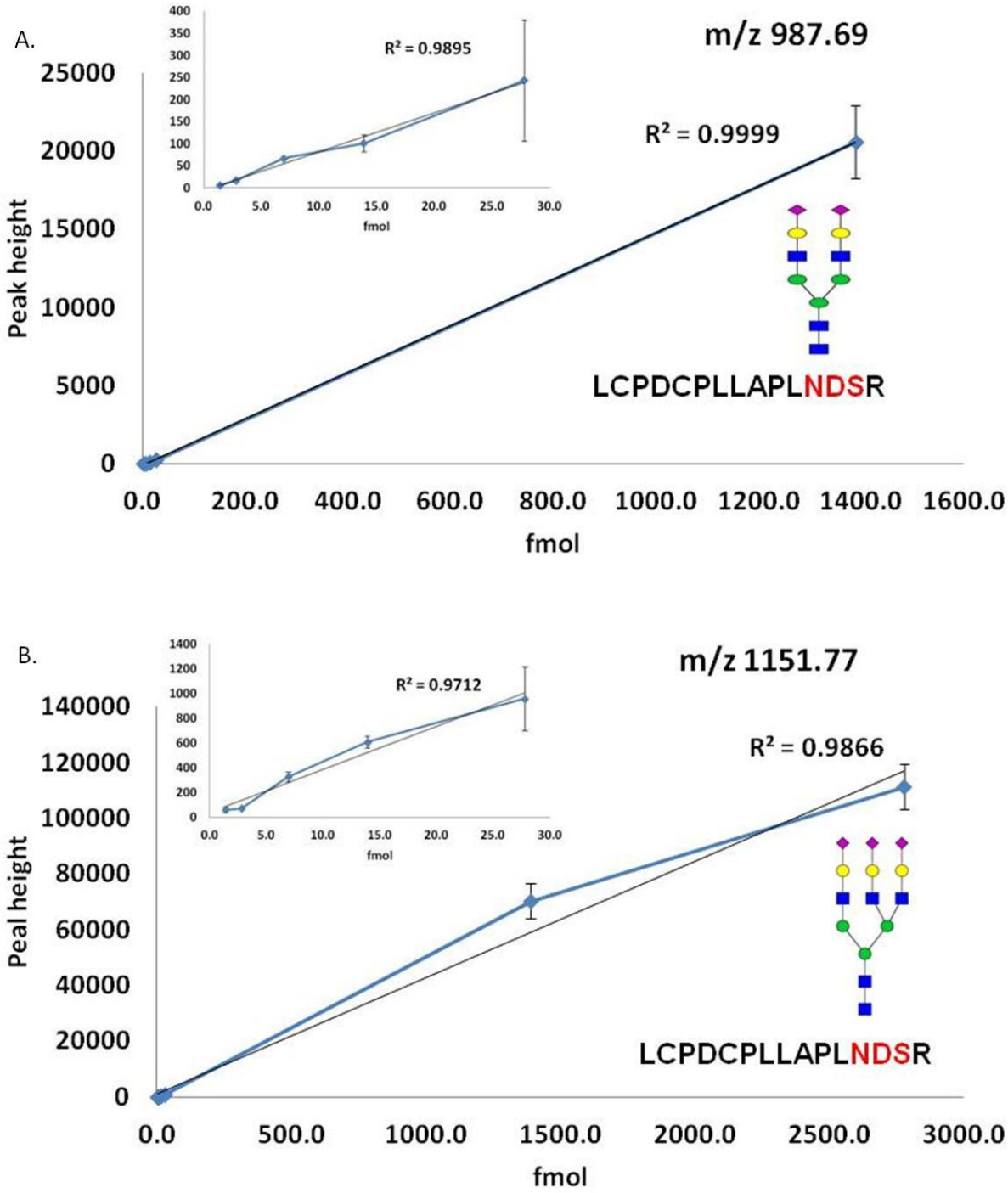
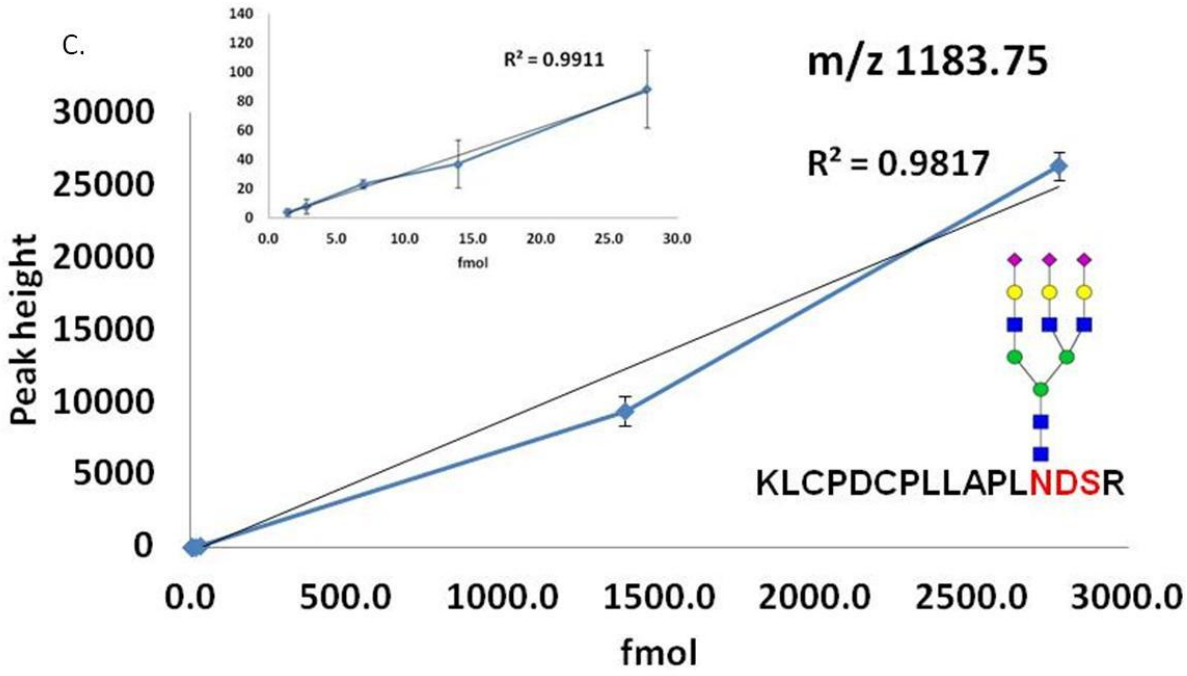
Supplementary Figure 1. Comparing the signal to noise ratios of DDA to MRM experiments with one, two and three transitions. The first two peaks are glycopeptides, while the third peak is a peptide. The increase in the S/N of the glycopeptides is 32-36 folds when using three transitions relative to one transition. This increase 6-8 folds when two transitions is used. However the increase in S/N for peptide is substantially lower (only 3 and 14-folds for 2-transitions and 3-transitions, respectively).



Supplementary Figure 2. Linear concentration dynamic ranges of representative fetuin glycopeptides. The ranges of these glycopeptides extend from 1.4fmol to 2.7nmol using oxonium ions, *m/z* 138, 274, and 657, as transitions for the MRM experiments. Insets are representing 1.4fmol to 27.8fmol range.



C.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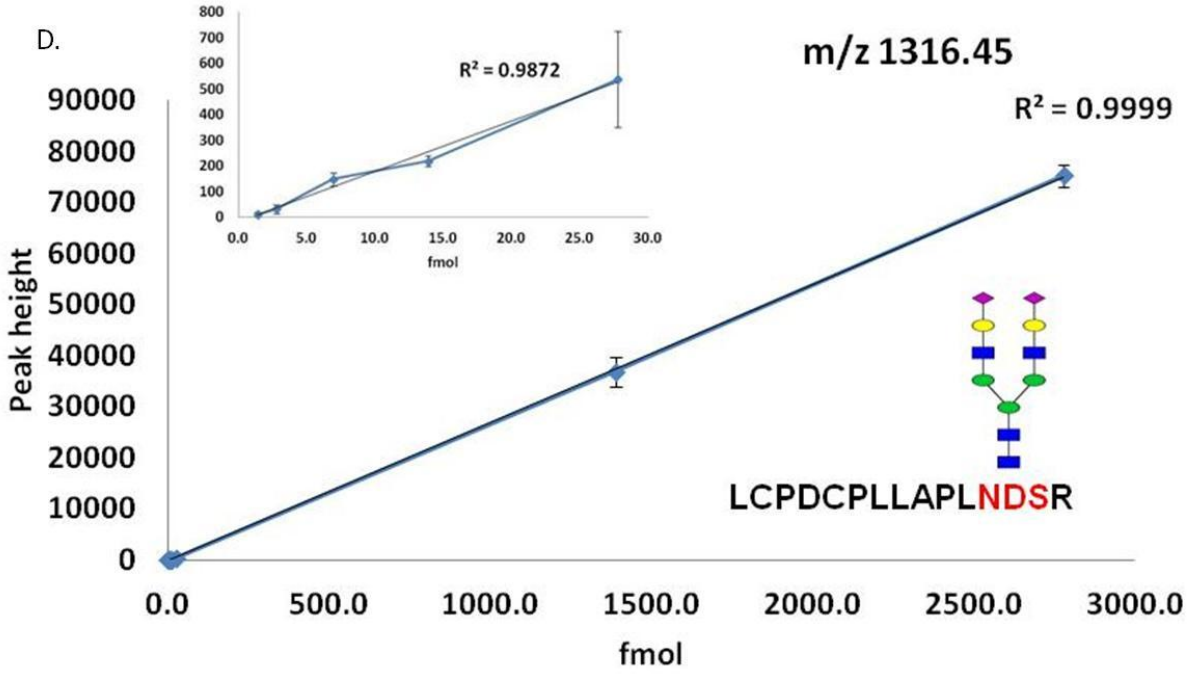
R² = 0.9911
KLCPDCPLLAPLNDSR
Peak height
fmol
0
5000
10000
15000
20000
25000
30000
0.0
500.0
1000.0
1500.0
2000.0
2500.0
3000.0
5.0
10.0
15.0
20.0
25.0
30.0
20
40
60
80
100
120
140

D.


m/z 1316.45
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R² = 0.9872
LCPDCPLLAPLNDSR
Peak height
fmol
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10000
20000
30000
40000
50000
60000
70000
80000
90000
0.0
500.0
1000.0
1500.0
2000.0
2500.0
3000.0
5.0
10.0
15.0
20.0
25.0
30.0
100
200
300
400
500
600
700
800