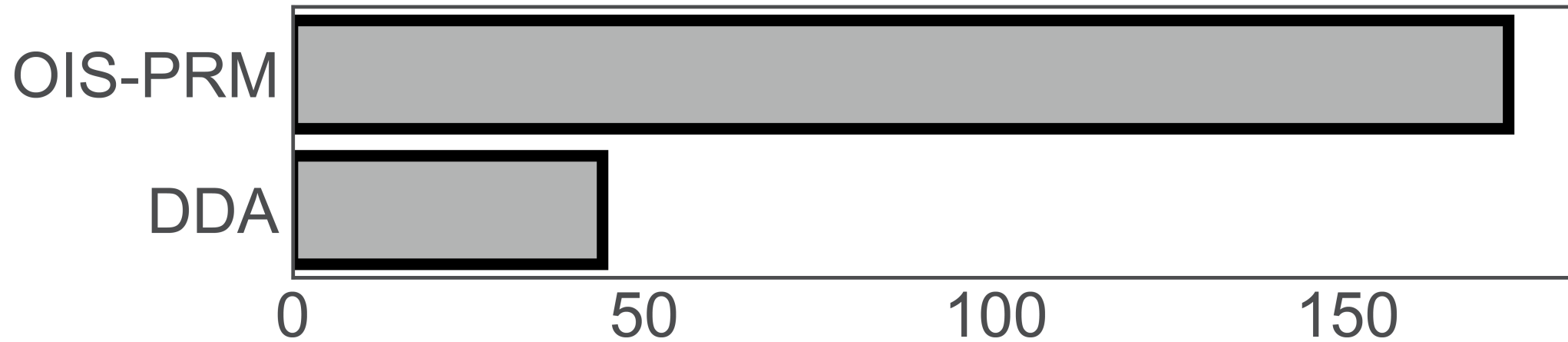


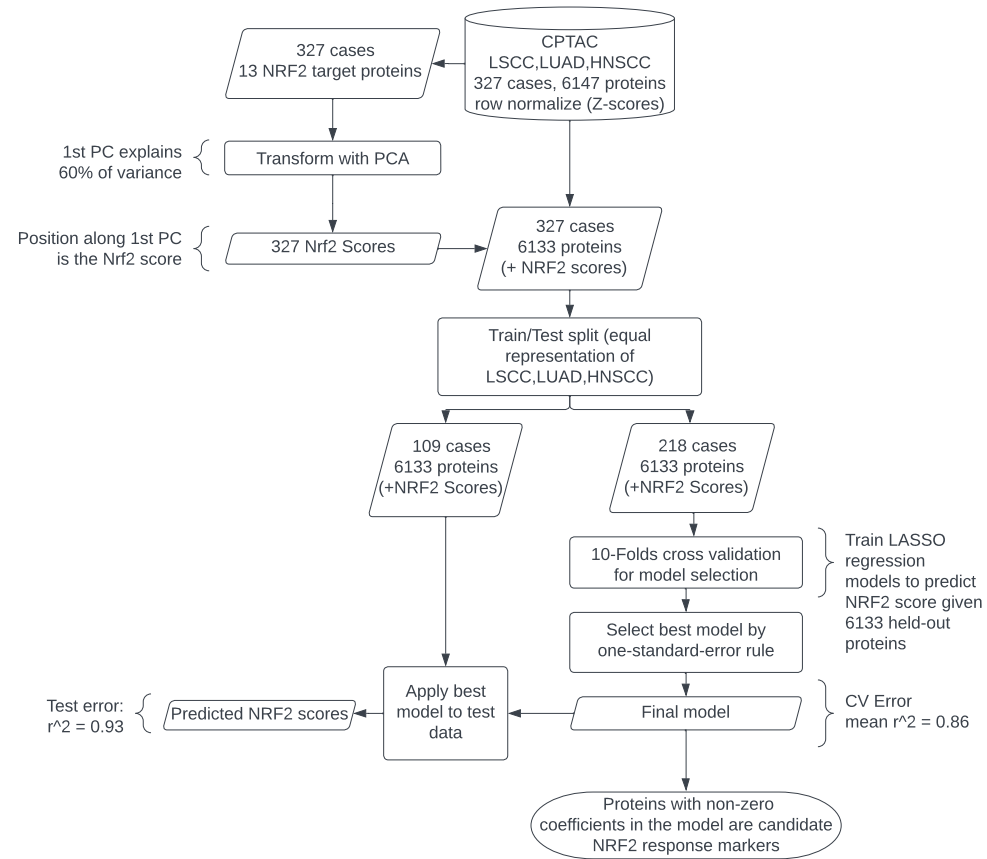
SF1

## Number of Proteins with CV < 20%

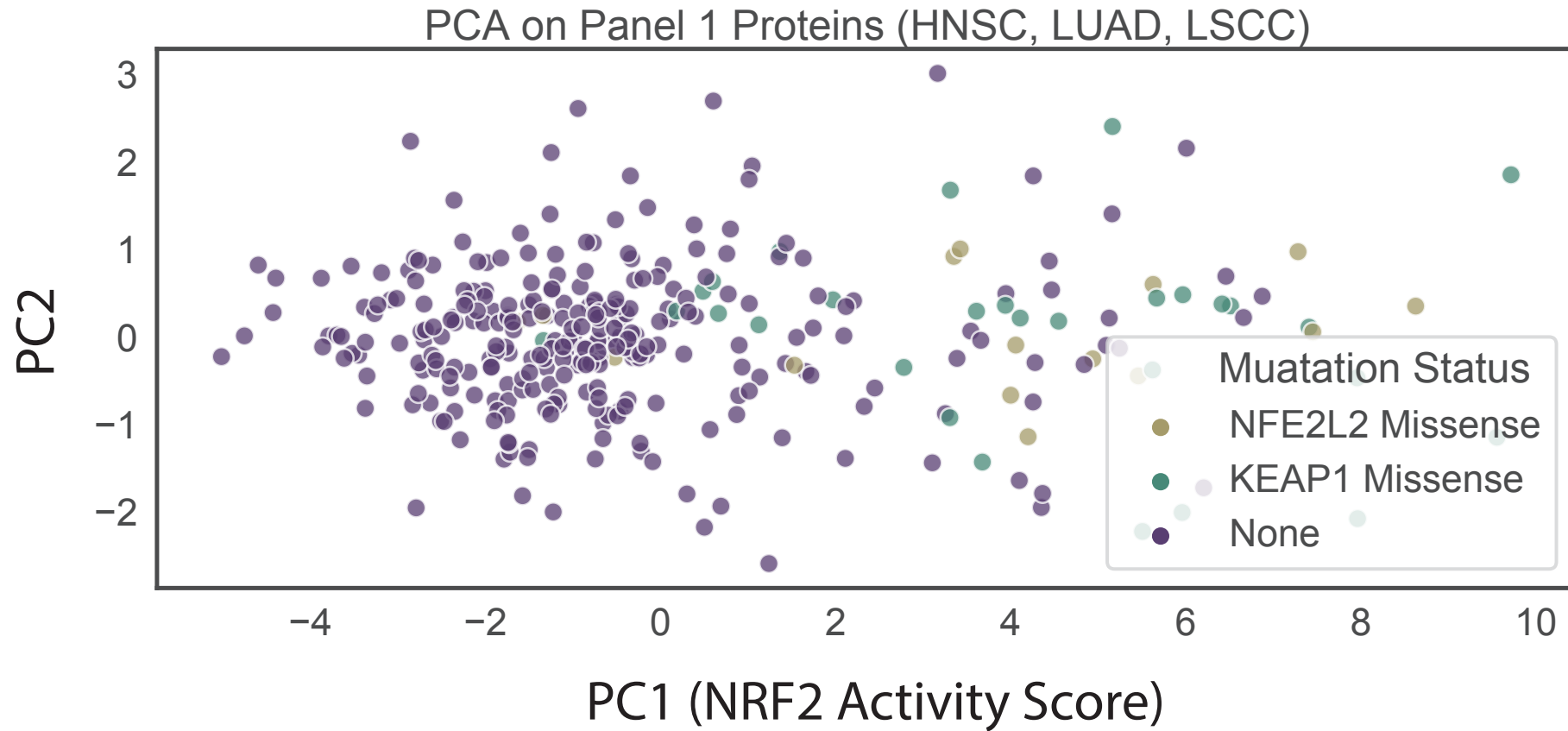


**OIS-PRM Improves Sensitivity over DDA.** OIS-PRM quantifies more proteins than does DDA (172 vs. 47) a with a coefficient of variation (CV) less than 20%. See main figure 1.

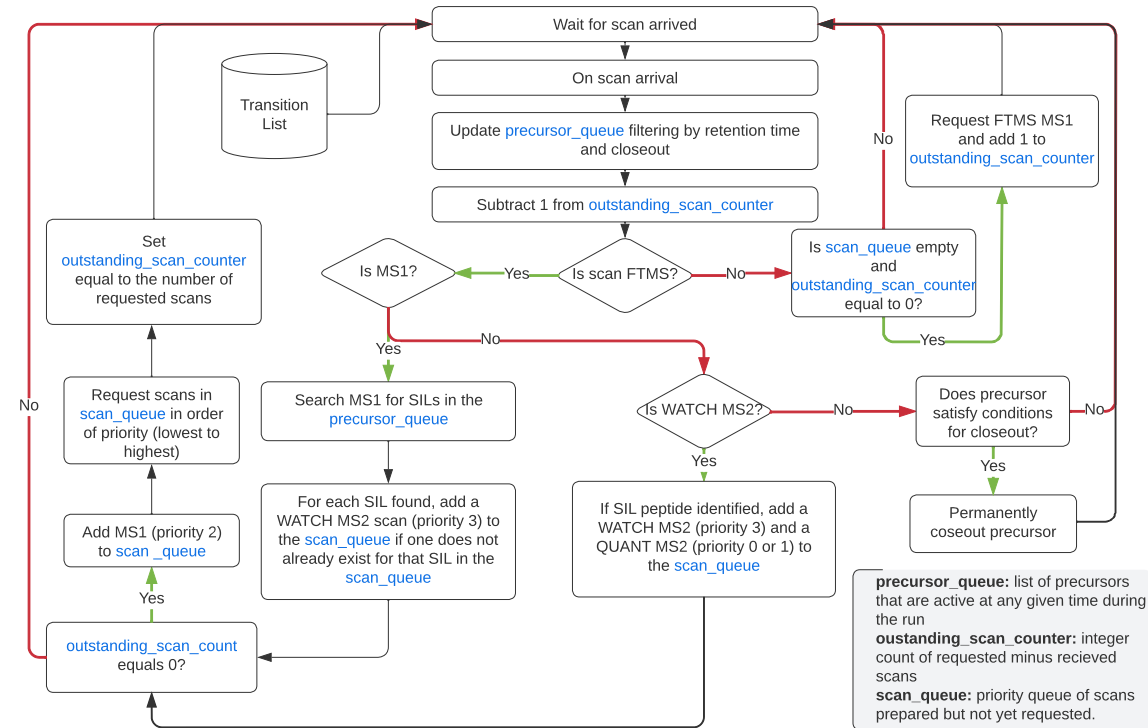
# SF2



**CPTAC Analysis.** Schema of NRF2 pathway analysis from CPTAC cohorts for HNSCC, LUSC, and LUAD. See main figure 2.

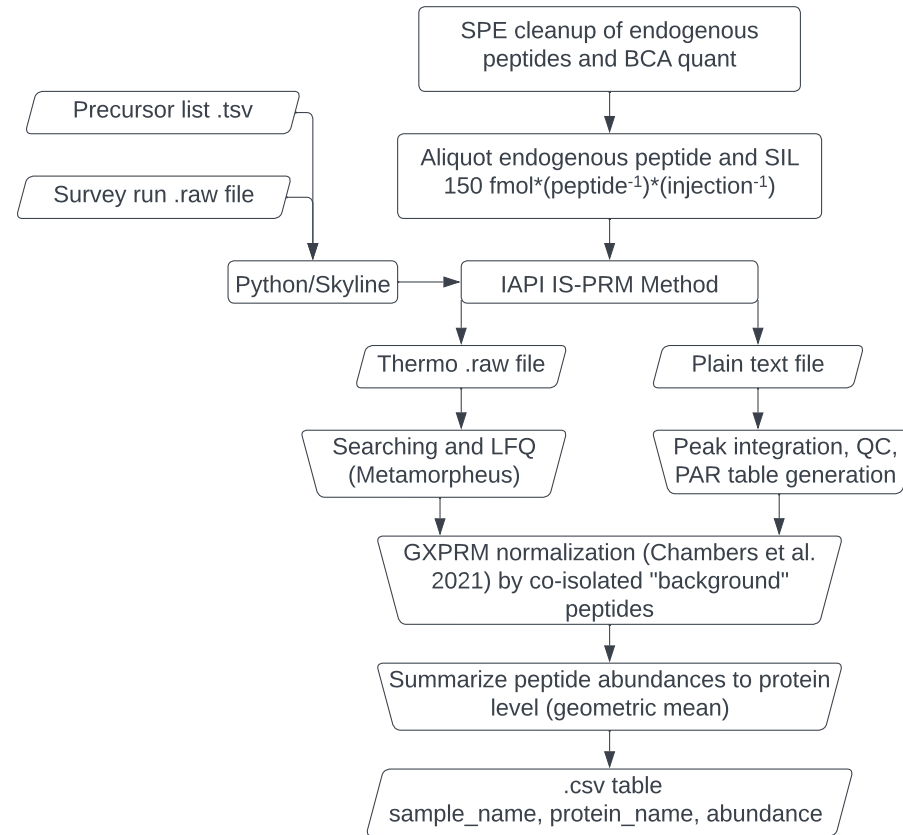


# SF4



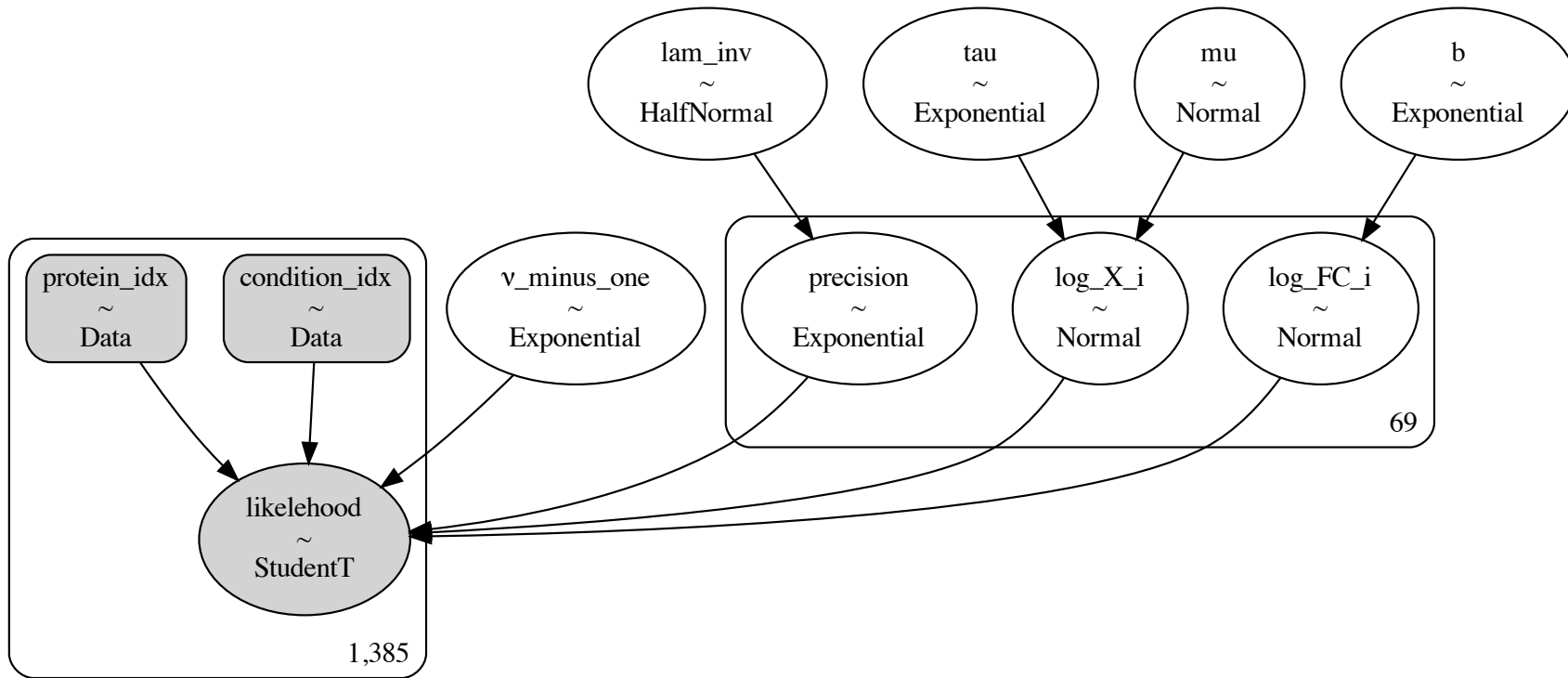
**OIS-PRM Algorithm.** Schematic of the OIS-PRM data acquisition algorithm as detailed in supplemental methods.

# SF5



**OIS-PRM Analysis Pipeline.** Schematic of the data analysis pipeline for OIS-PRM and SureQuant™ experiments as detailed in supplemental methods.

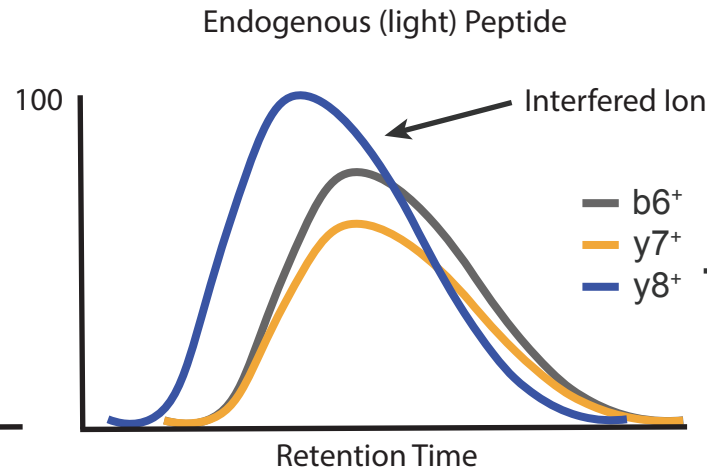
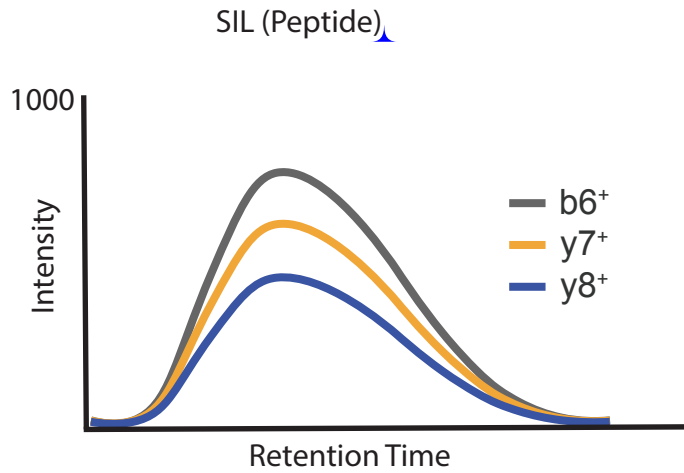
SF6



**NRF2 Target Expression Model.** Plate diagram for hierarchical Bayesian model used to estimate posterior distributions for mean fold changes in the expression of NRF2 targets between NRF2 active and inactive cell lines and tumors. Detailed in supplemental methods.

SF7

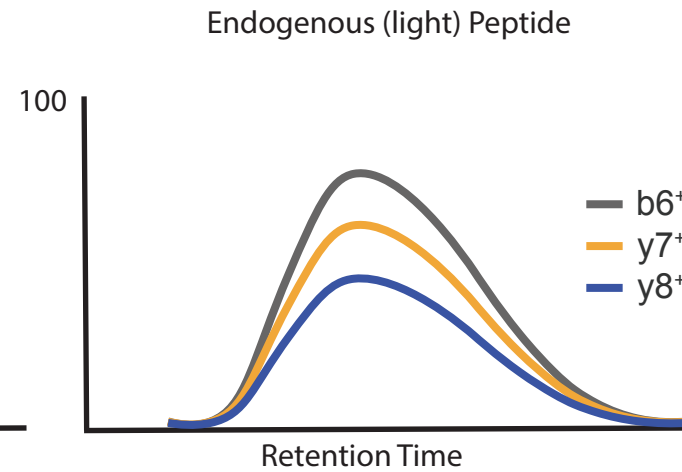
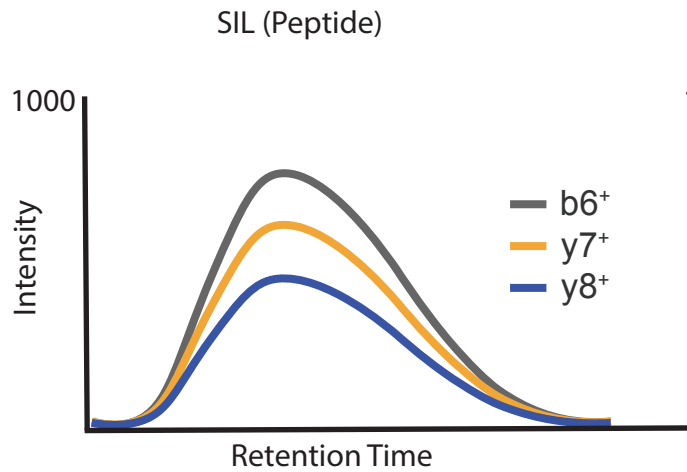
Spectral Contrast Angle Between SIL and Endogeneous  
With Interference on y8<sup>+</sup> Ion



	b6 <sup>+</sup>	y7 <sup>+</sup>	y8 <sup>+</sup>
SIL	1000	800	600
Endogenous	100	80	120

Spectral Contrast Angle  
 $\approx \pi/10$  Radians

Spectral Contrast Angle Between SIL and Endogeneous  
Absent Interference



	b6 <sup>+</sup>	y7 <sup>+</sup>	y8 <sup>+</sup>
SIL	1000	800	600
Endogenous	100	80	60

Spectral Contrast Angle  
0 Radians

**Use of Spectral Contrast Angles to Detect Interference:** Spectral contrast angles between the endogenous and internal standard peptides are used to detect interfered transitions.