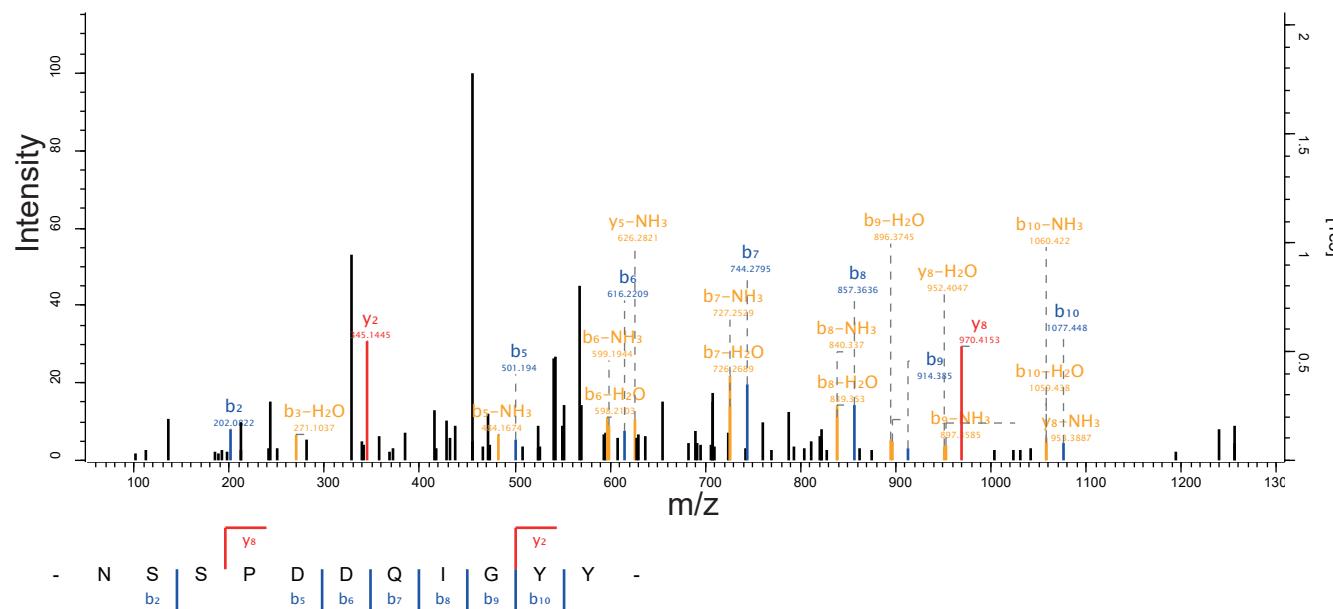


Supplementary Figure 4

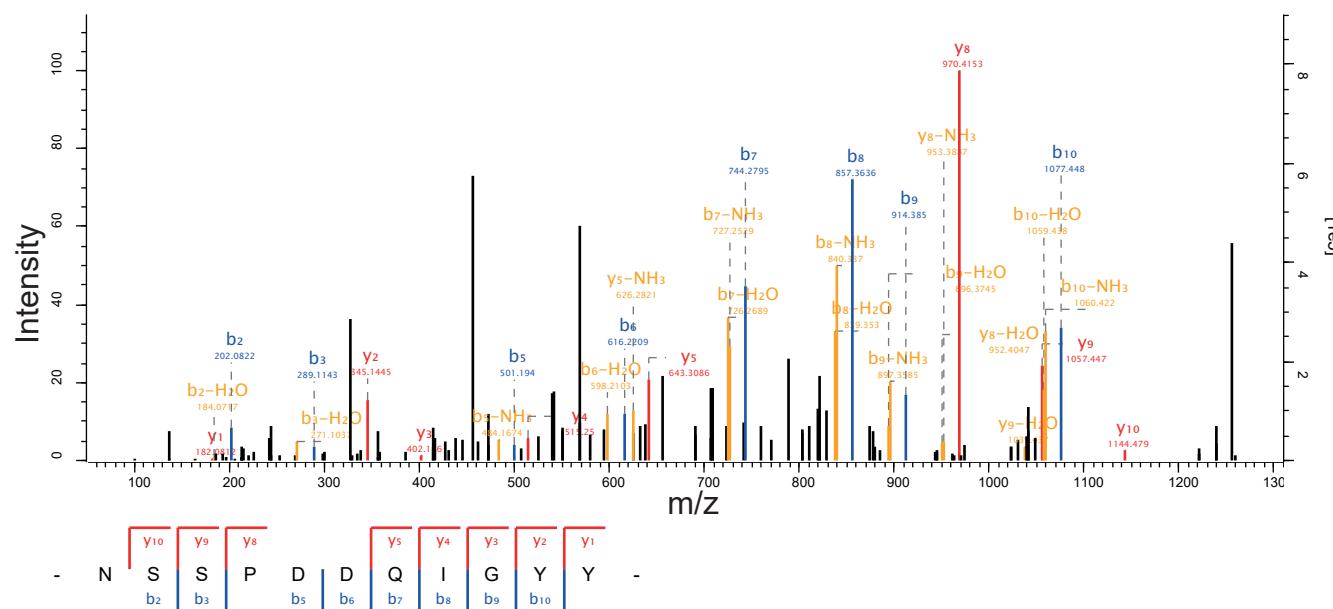
A. Synthetic peptides

B cell line 721.221 A\*01:01 with OE of Nucleocapsid HLA-I NSSPDDQIGYY

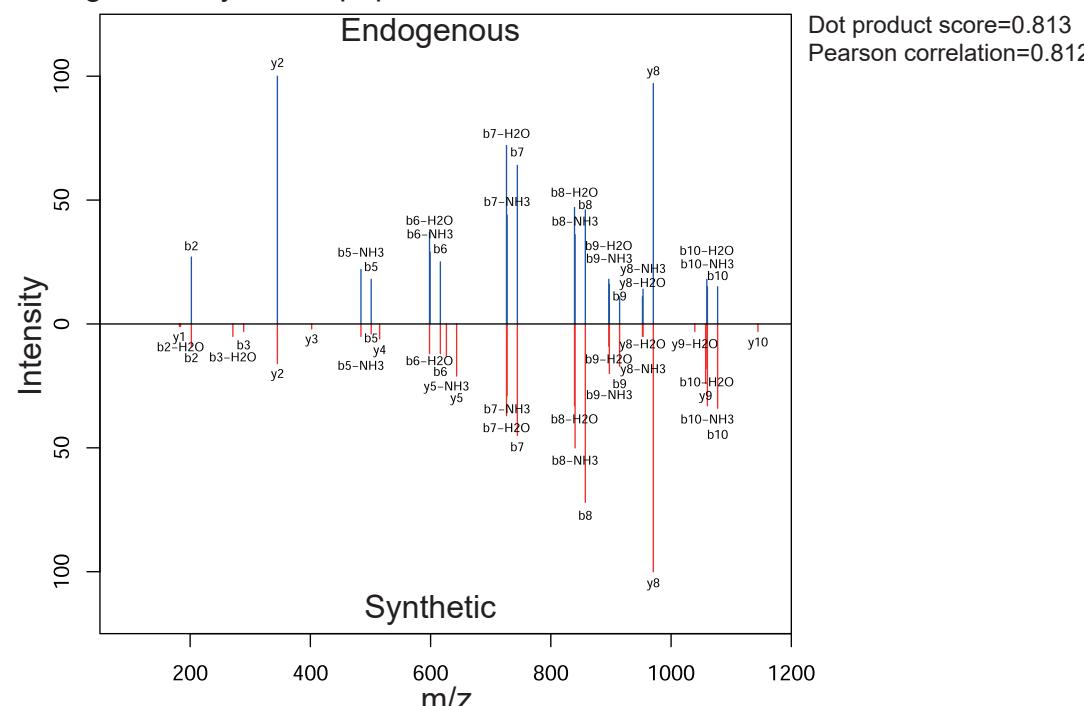
Endogenous peptide



Synthetic peptide

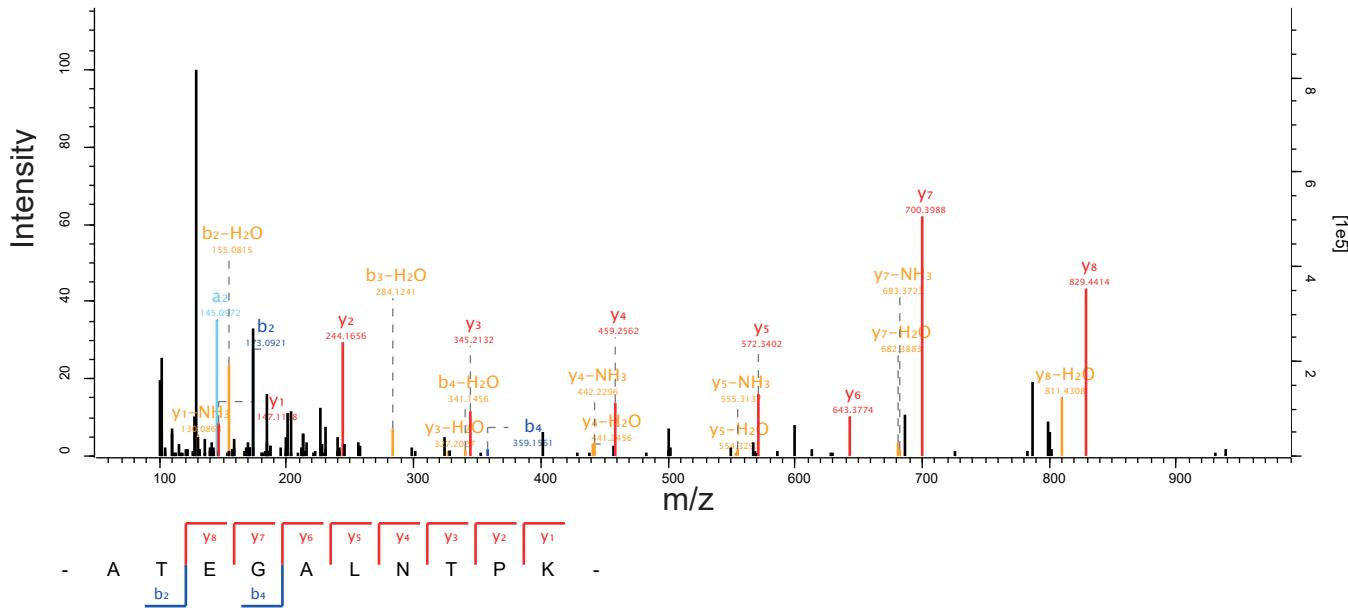


Endogenous/Synthetic peptide correlation

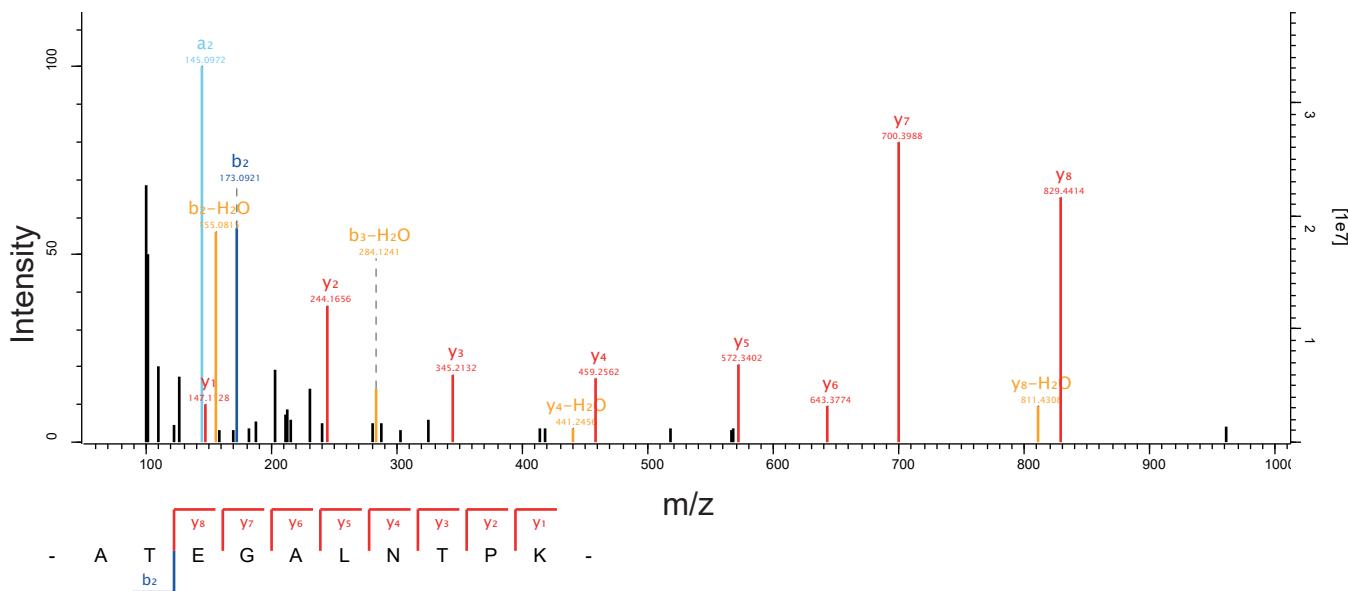


# B cell line 721.221 A\*11:01 with OE of Nucleocapsid HLA-I ATEGALNTPK

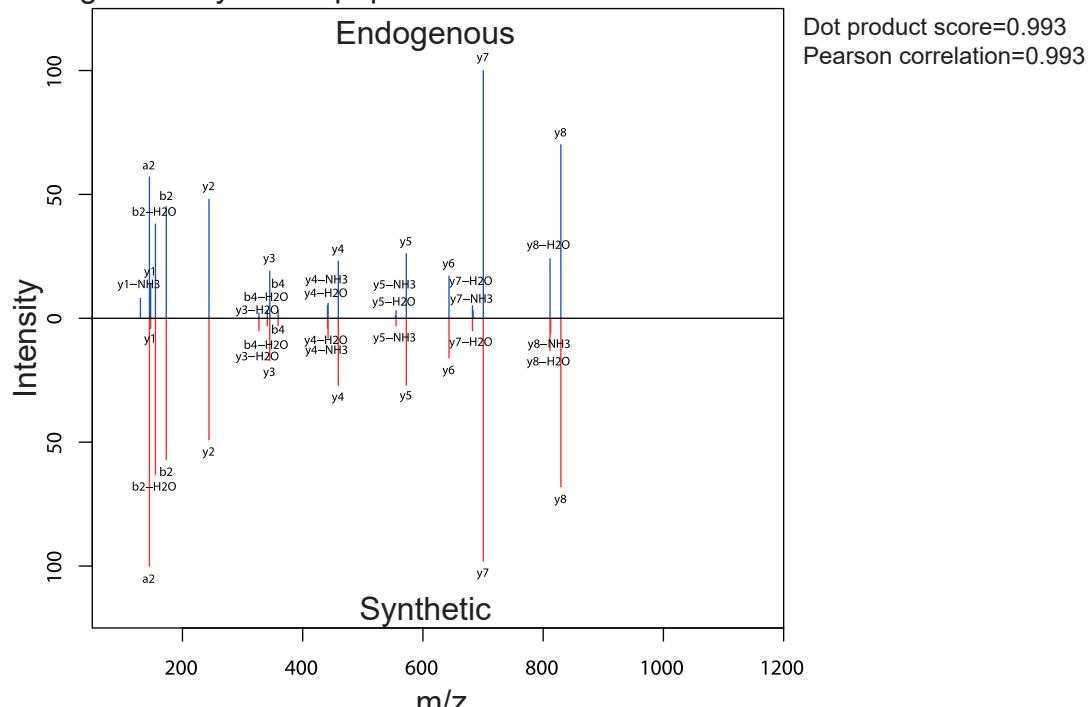
## Endogenous peptide



## Synthetic peptide

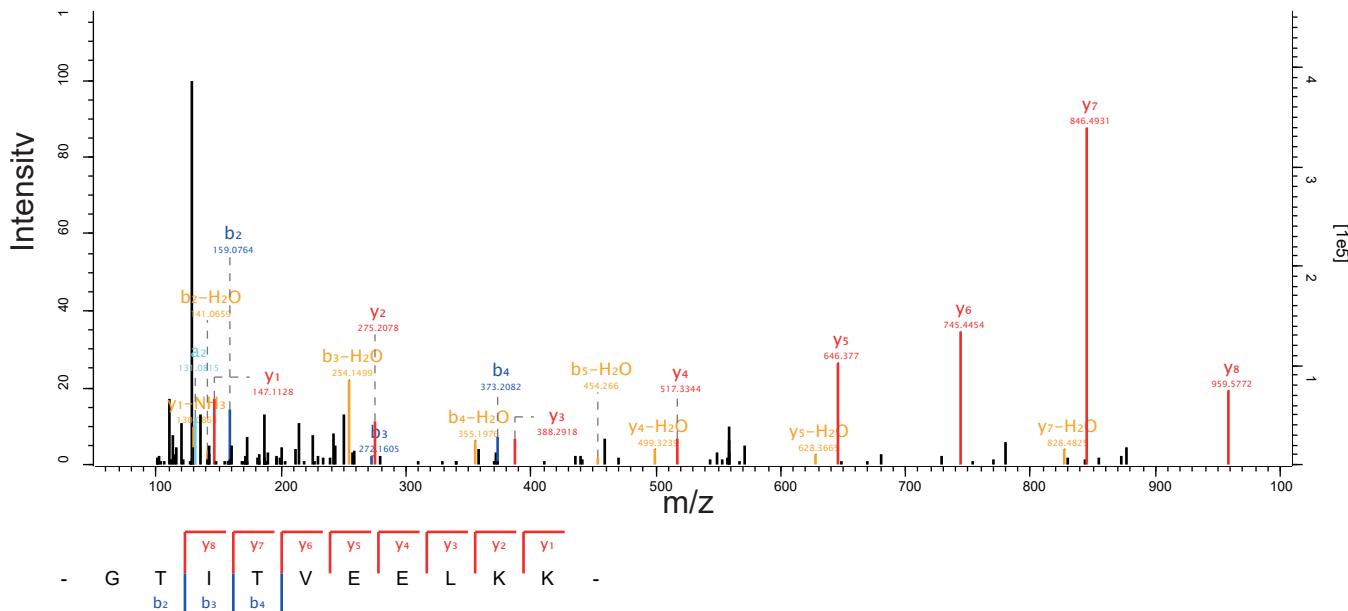


## Endogenous/Synthetic peptide correlation

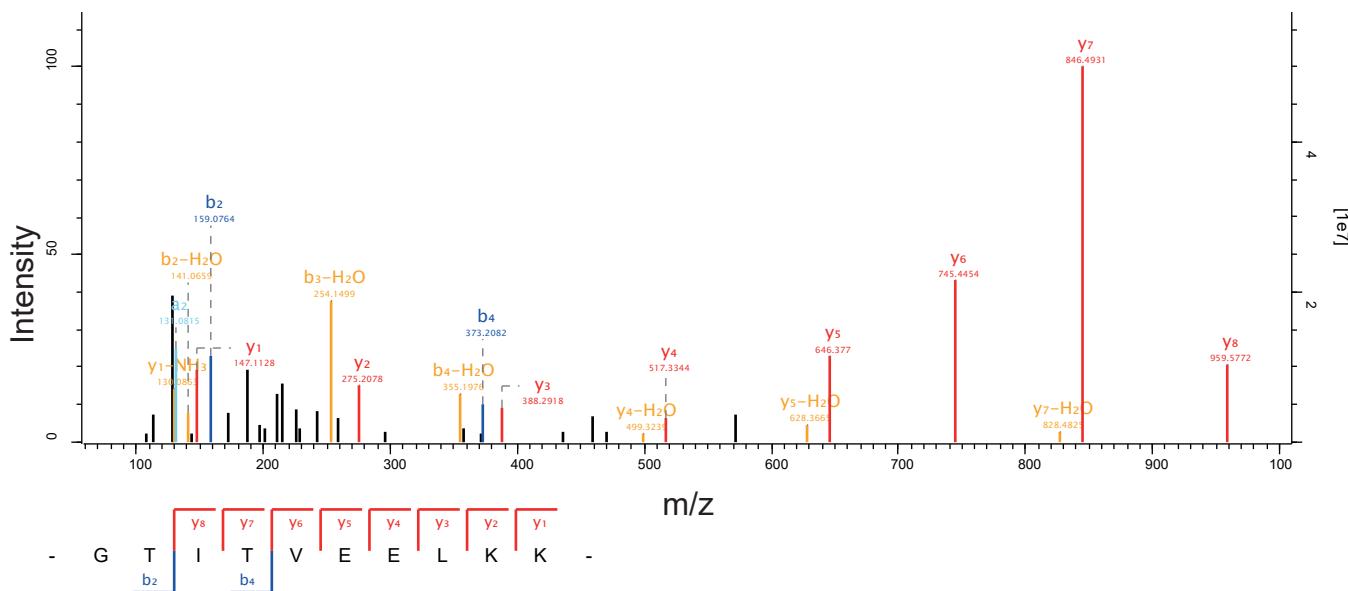


# B cell line 721.221 A\*11:01 with OE of Membrane HLA-I GTITVEELKK

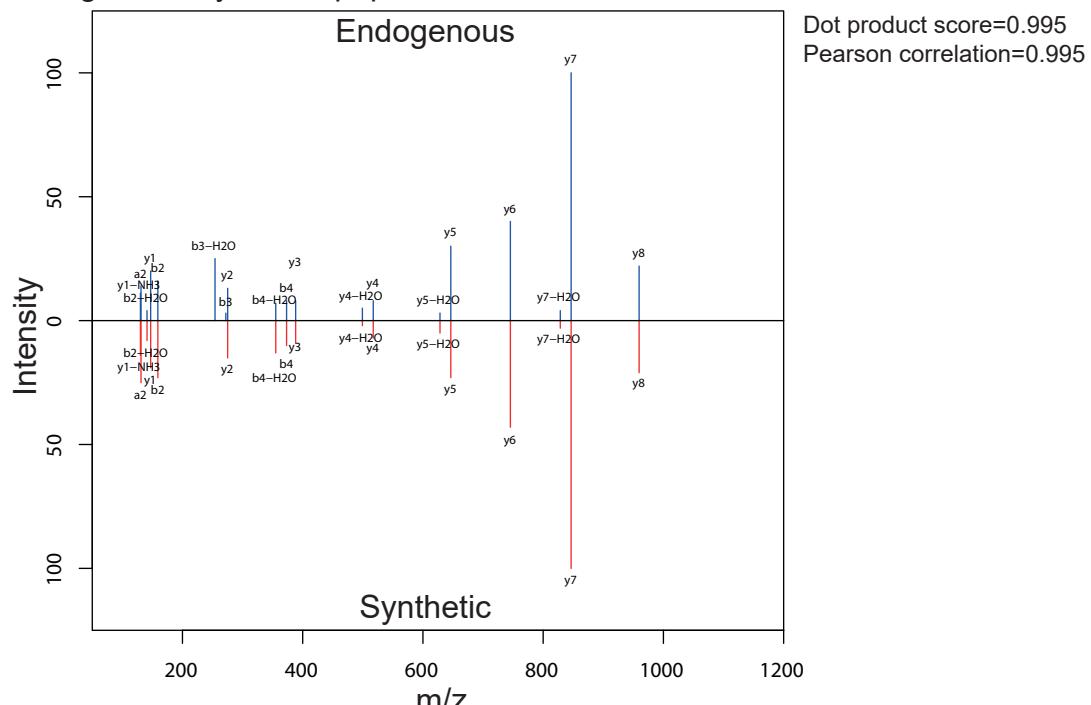
## Endogenous peptide



## Synthetic peptide

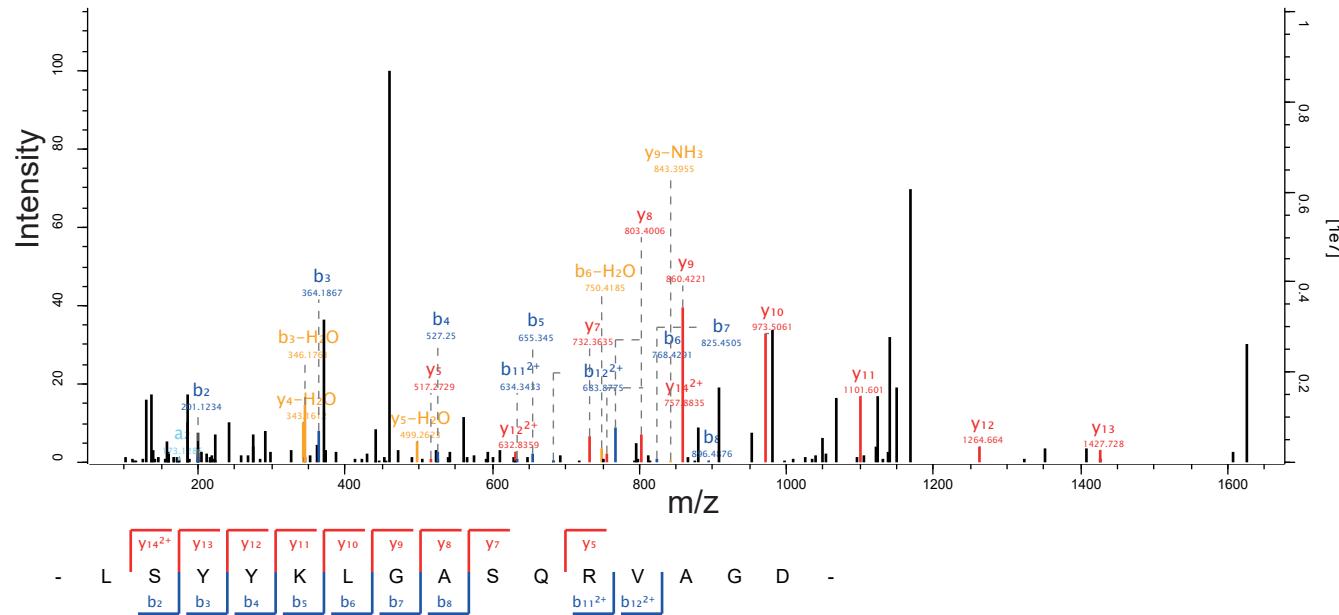


## Endogenous/Synthetic peptide correlation

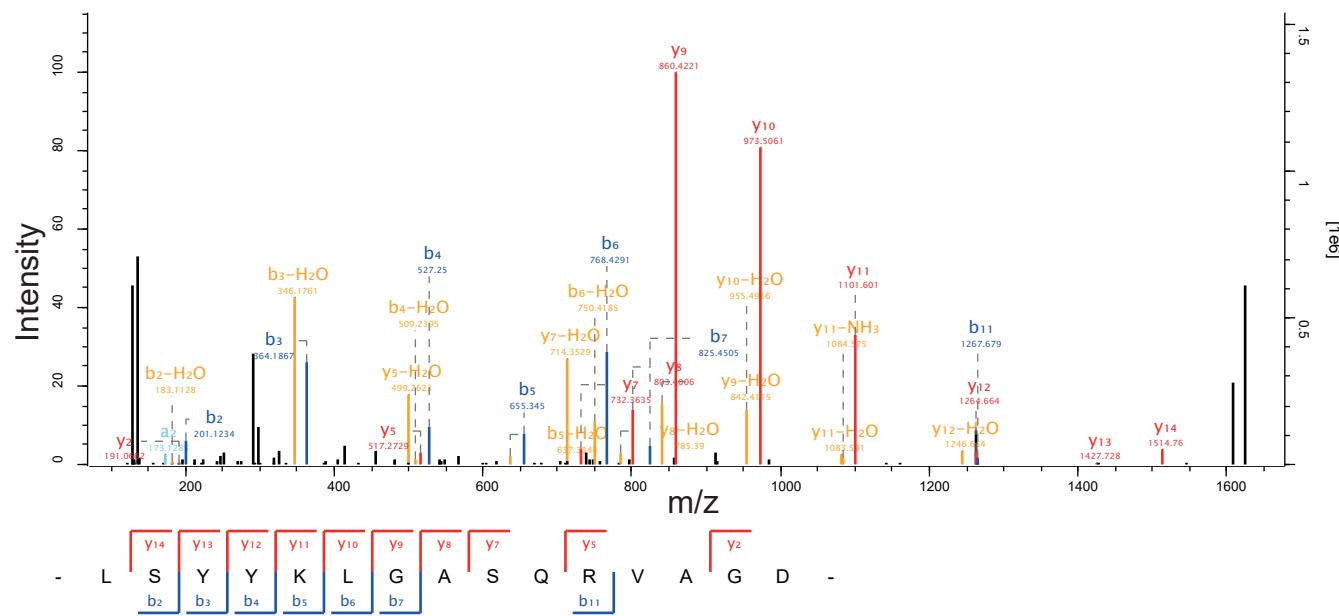


# B cell line 721.221 A\*11:01 with OE of Membrane HLA-II LSYYKLGASQRVAGD

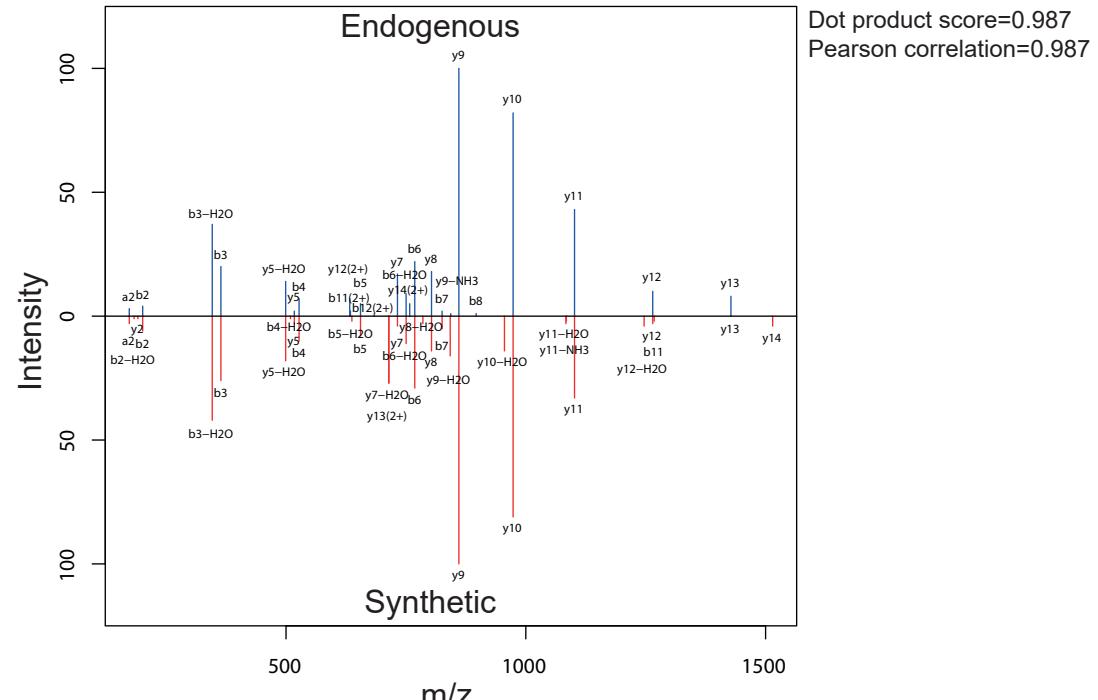
## Endogenous peptide



## Synthetic peptide

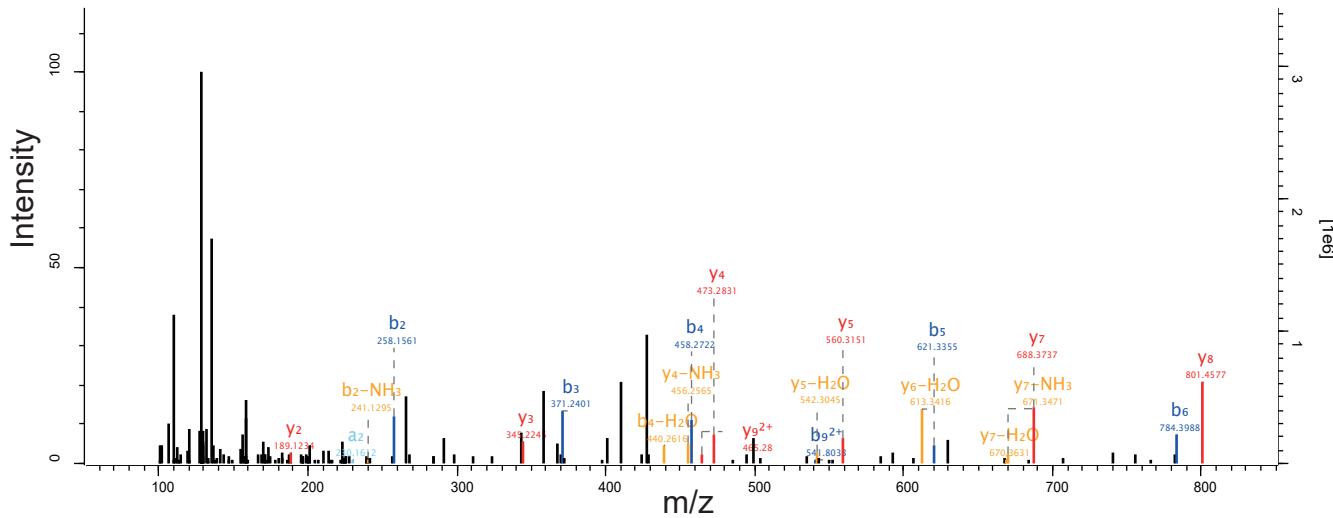


## Endogenous/Synthetic peptide correlation

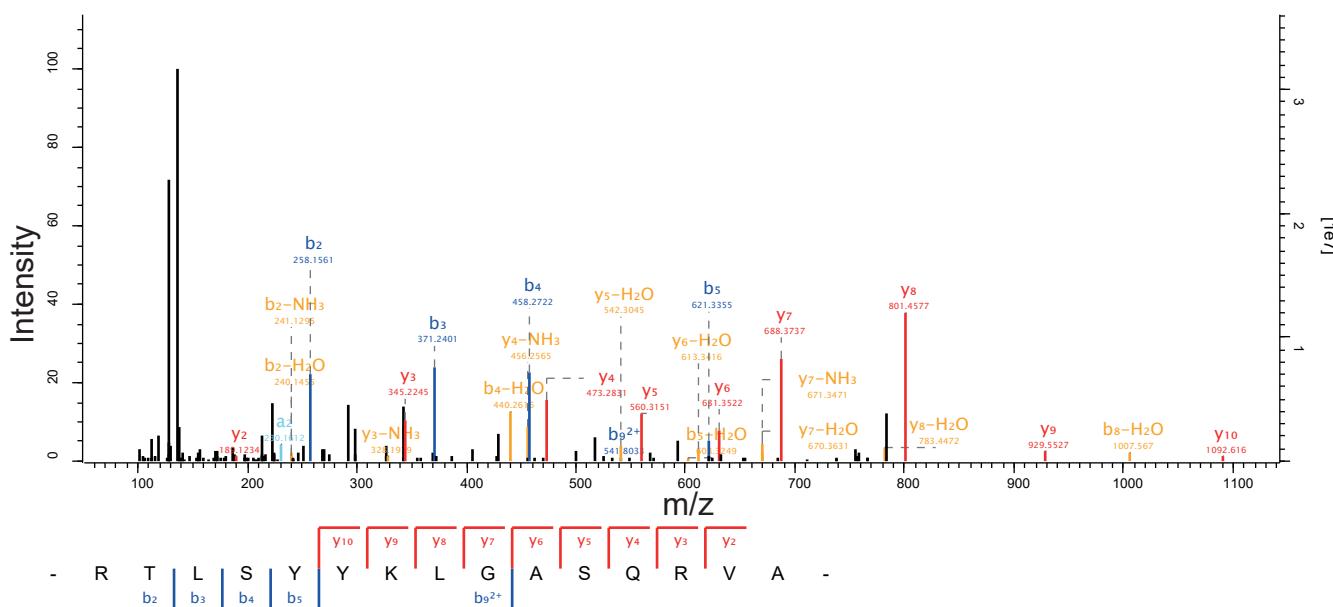


# B cell line 721.221 A\*11:01 with OE of Membrane HLA-II RTLSYYKLGASQRVA

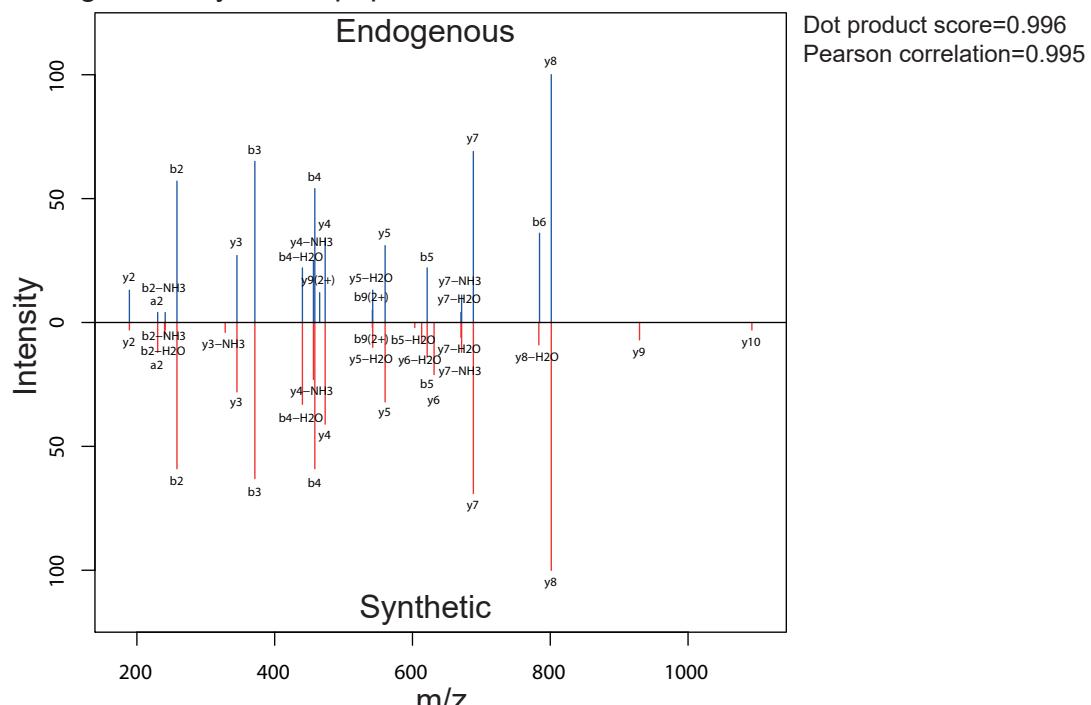
## Endogenous peptide



## Synthetic peptide

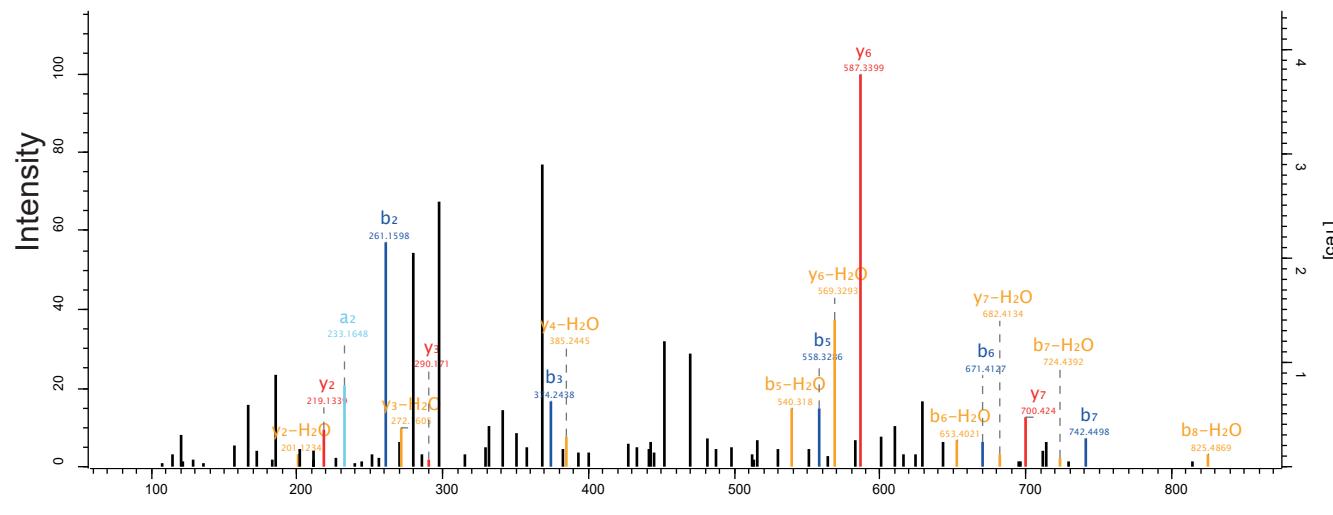


## Endogenous/Synthetic peptide correlation

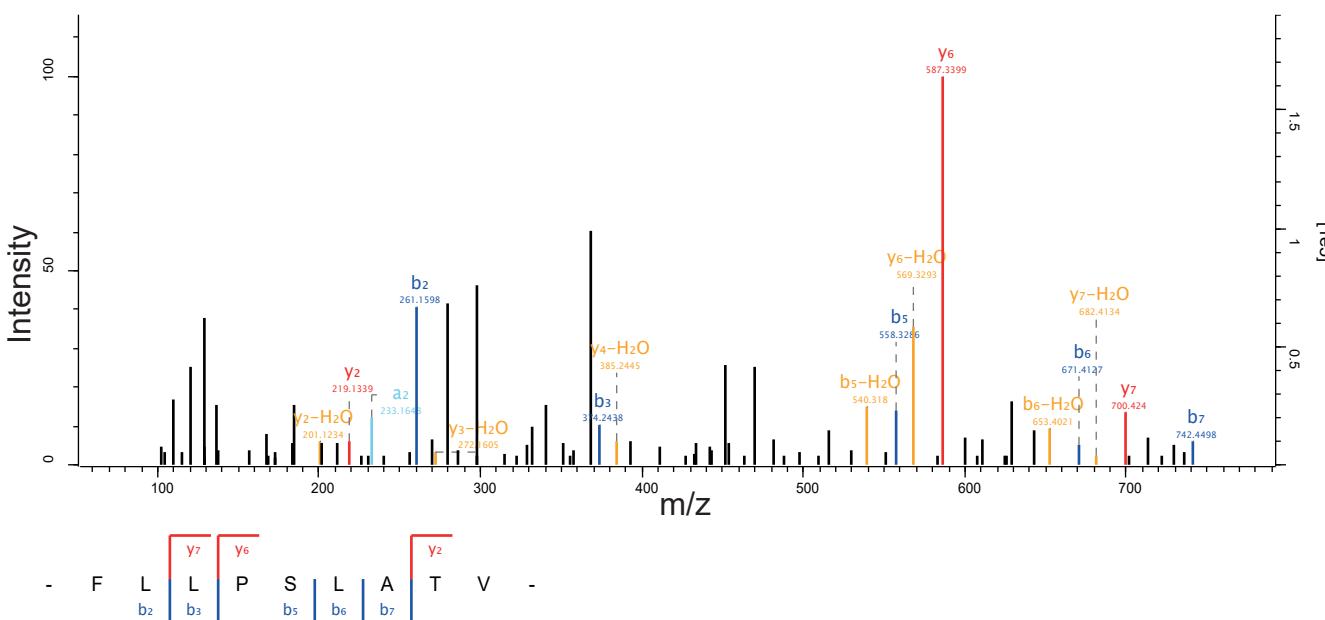


# B cell line 721.221 A\*02:01 with OE of nsp6 HLA-I FLLPSLATV

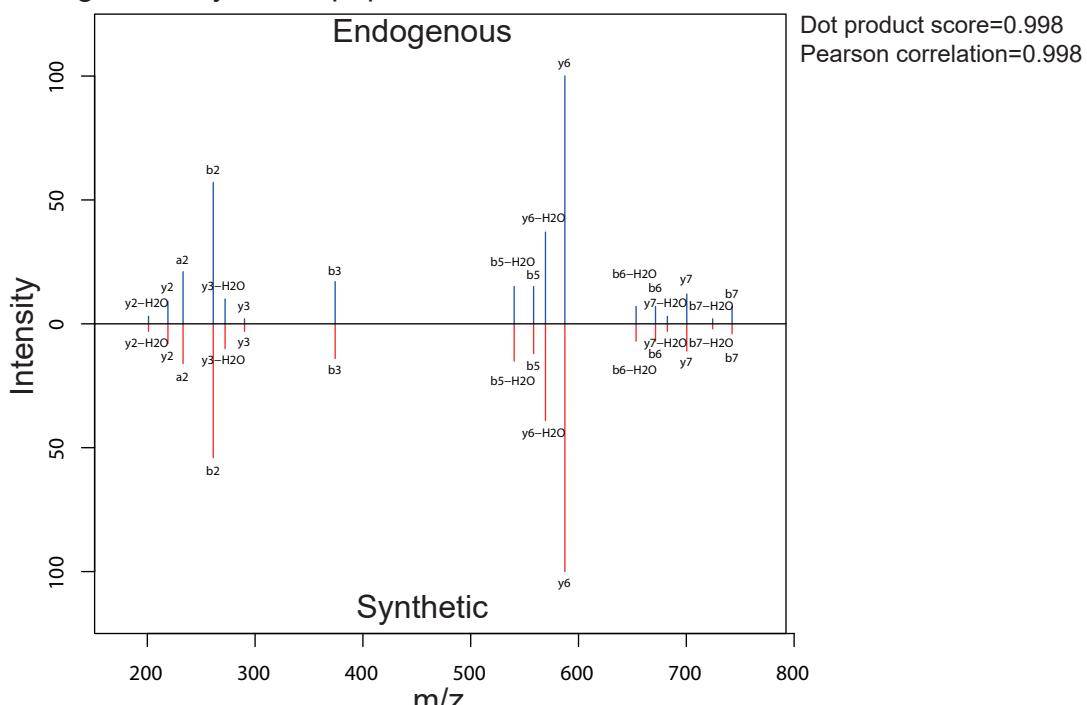
## Endogenous peptide



## Synthetic peptide

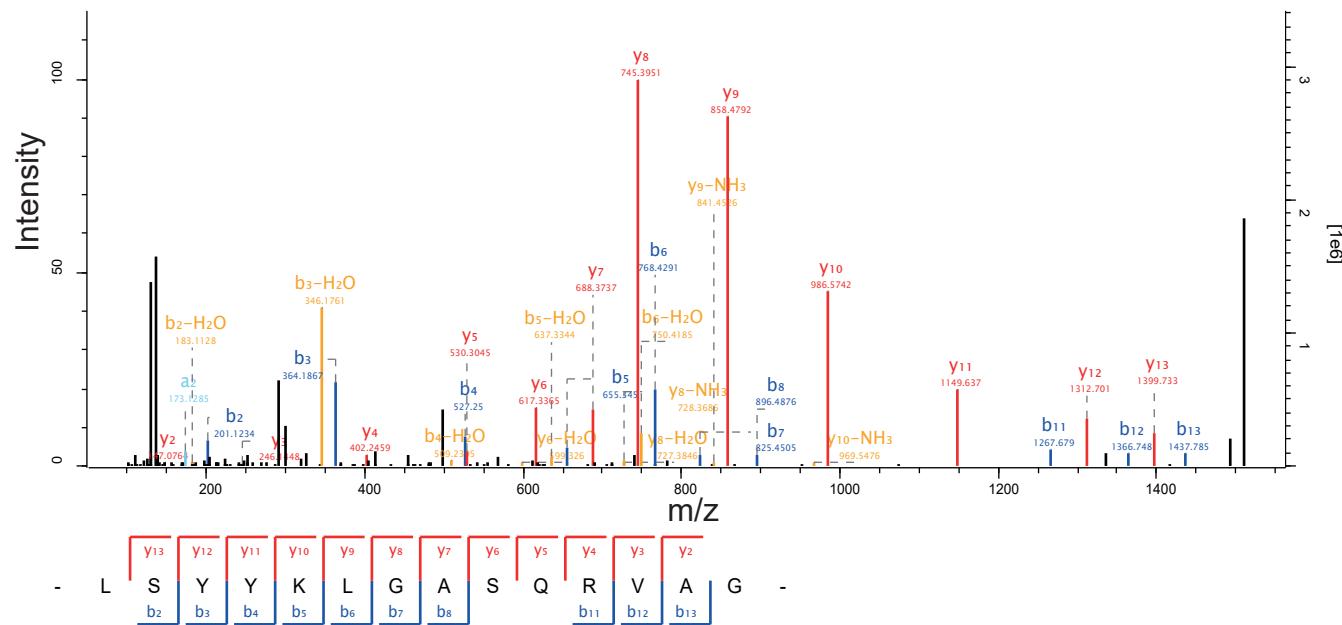


## Endogenous/Synthetic peptide correlation

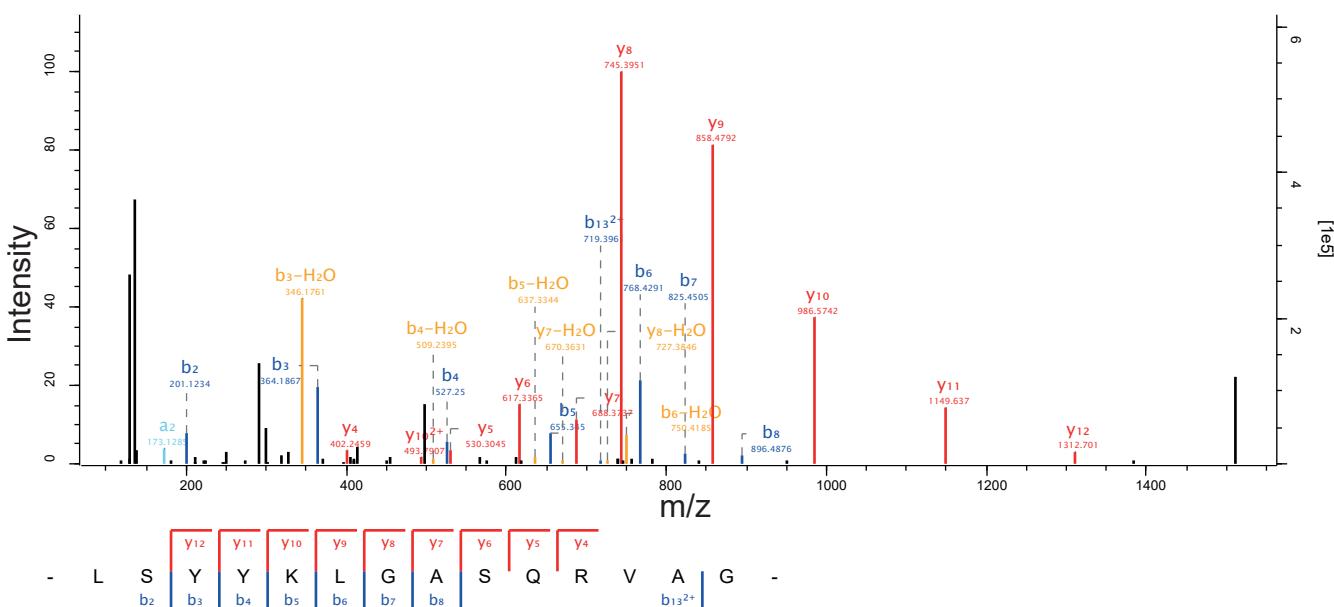


# B cell line 721.221 A\*02:01 with OE of Membrane HLA-II LSYYKLGASQRVAG

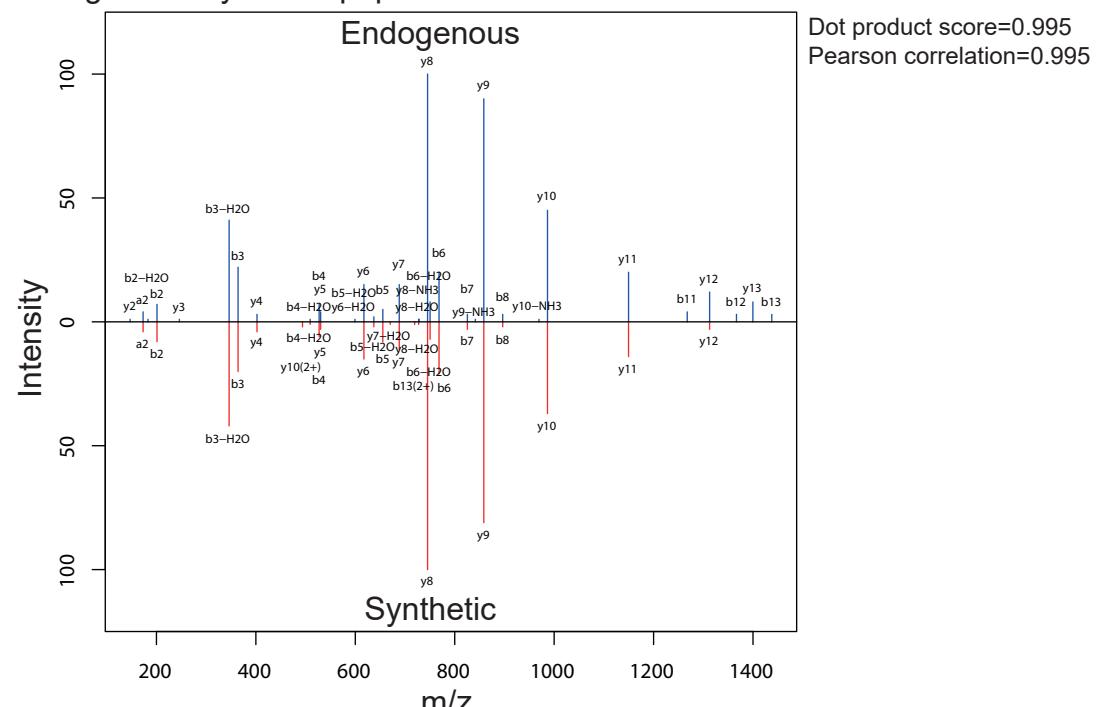
## Endogenous peptide



## Synthetic peptide

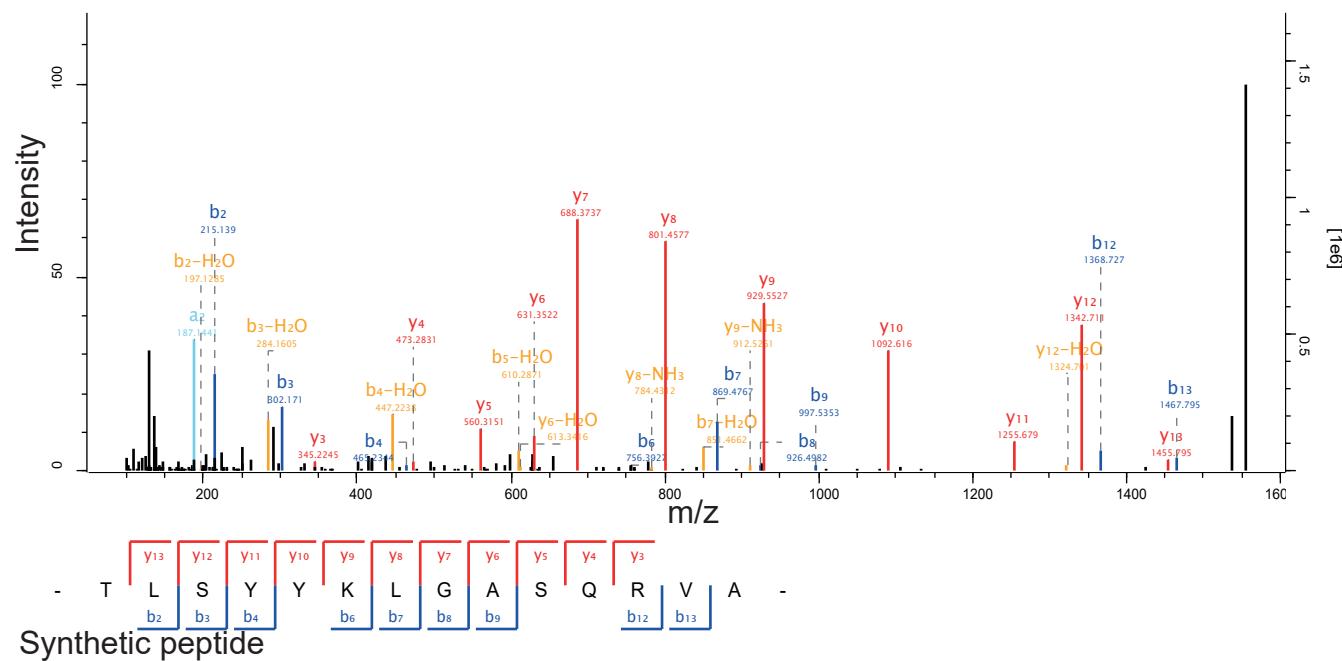


## Endogenous/Synthetic peptide correlation

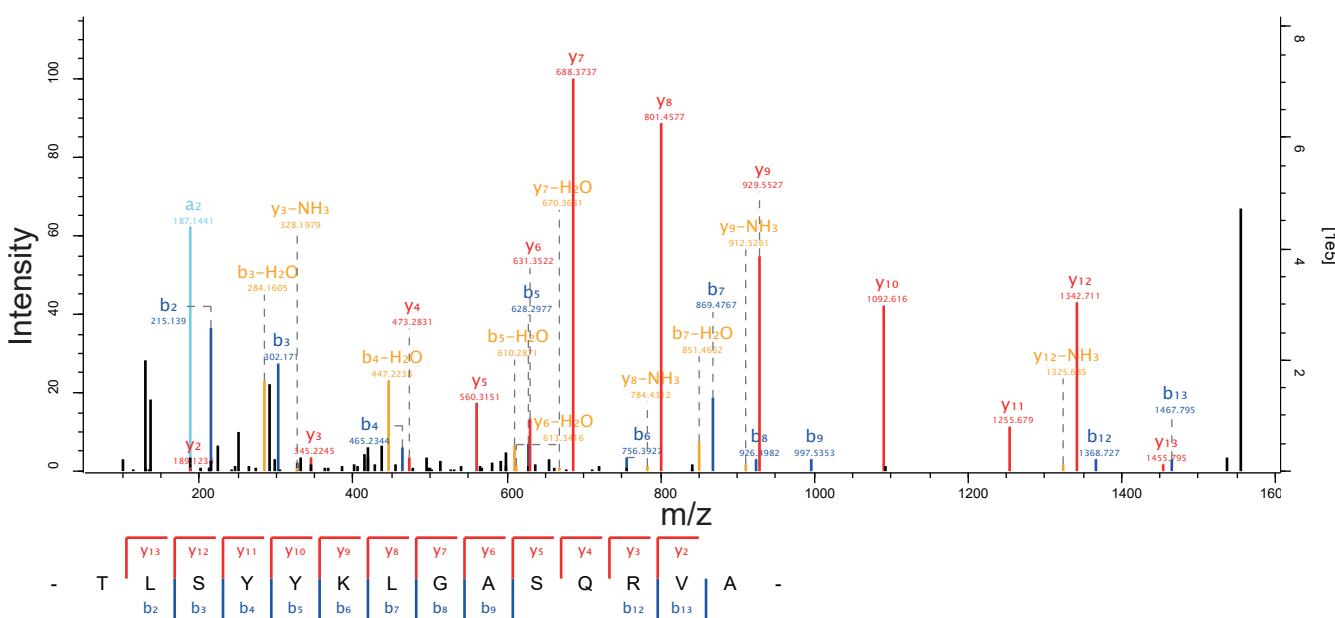


# B cell line 721.221 A\*02:01 with OE of Membrane HLA-II TLSYYKLGASQRVA

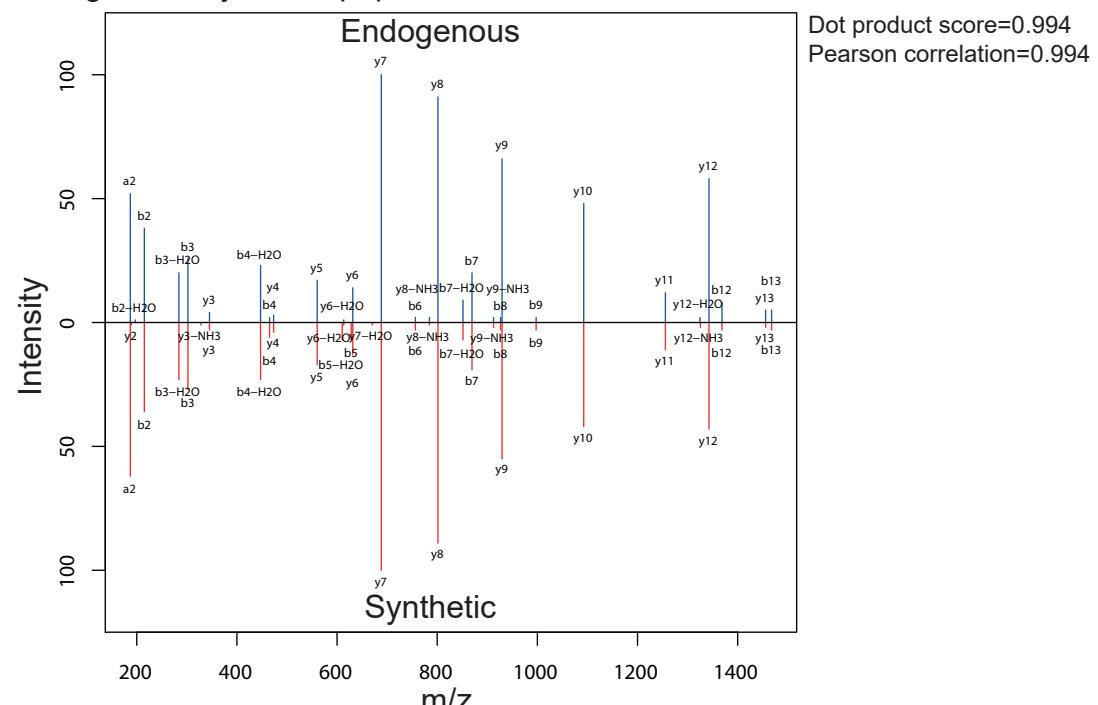
## Endogenous peptide



## Synthetic peptide

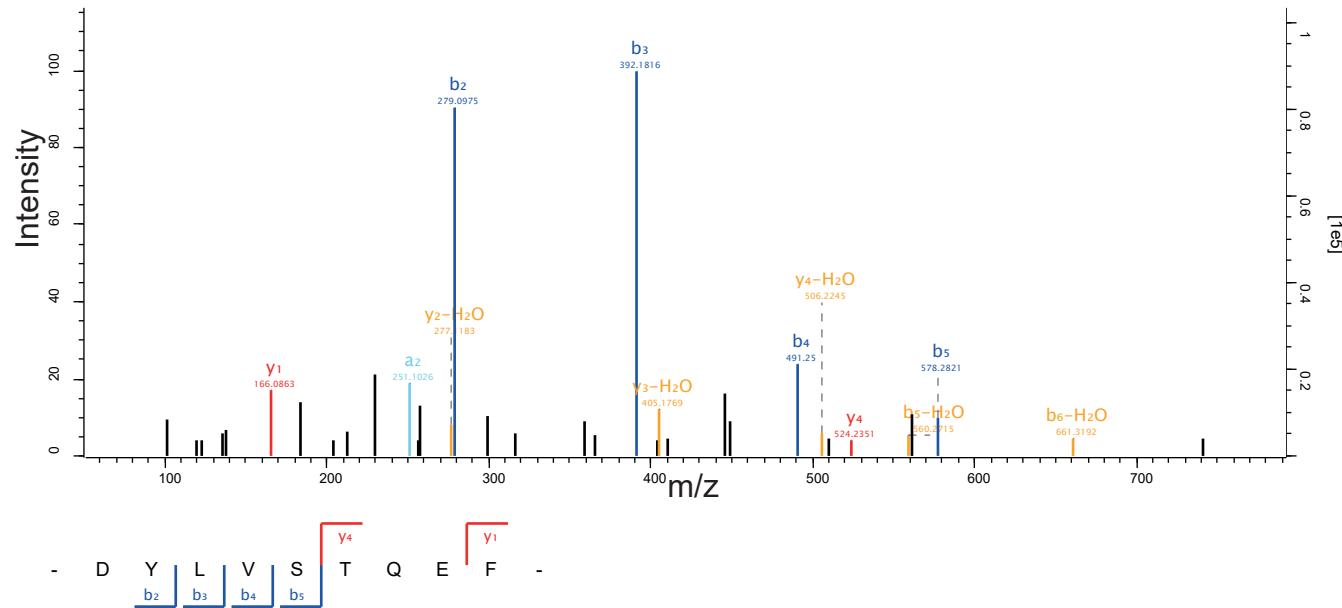


## Endogenous/Synthetic peptide correlation

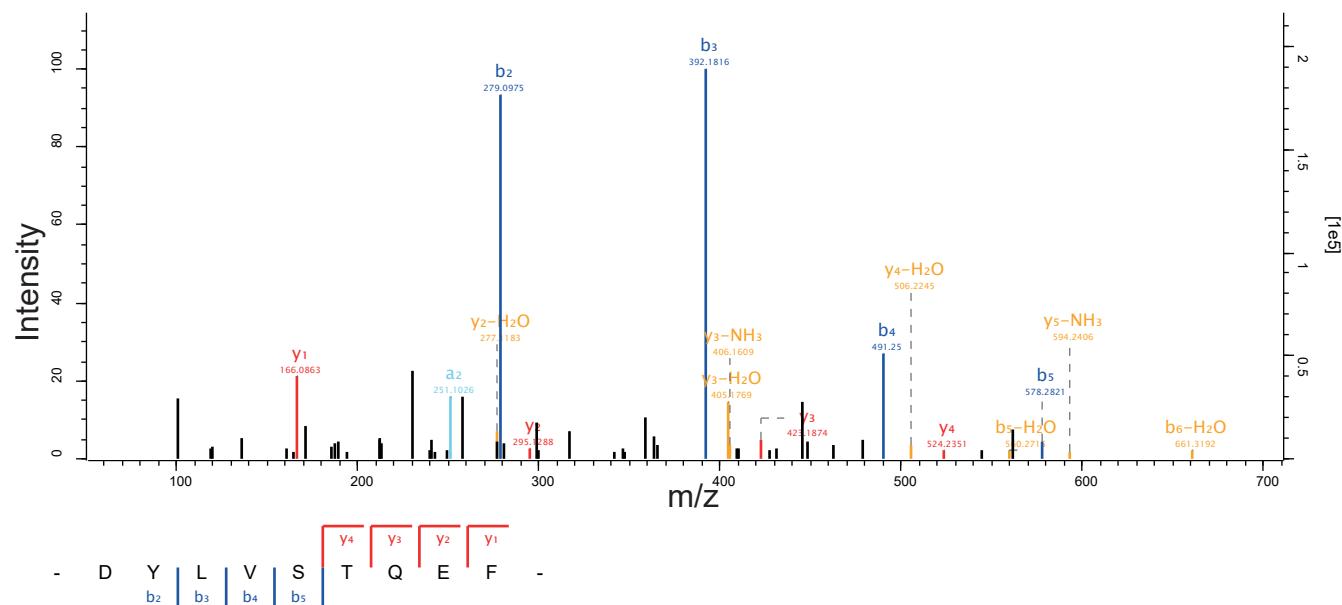


# B cell line 721.221 A\*24:02 with OE of nsp6 HLA-I DYLVSTQEF

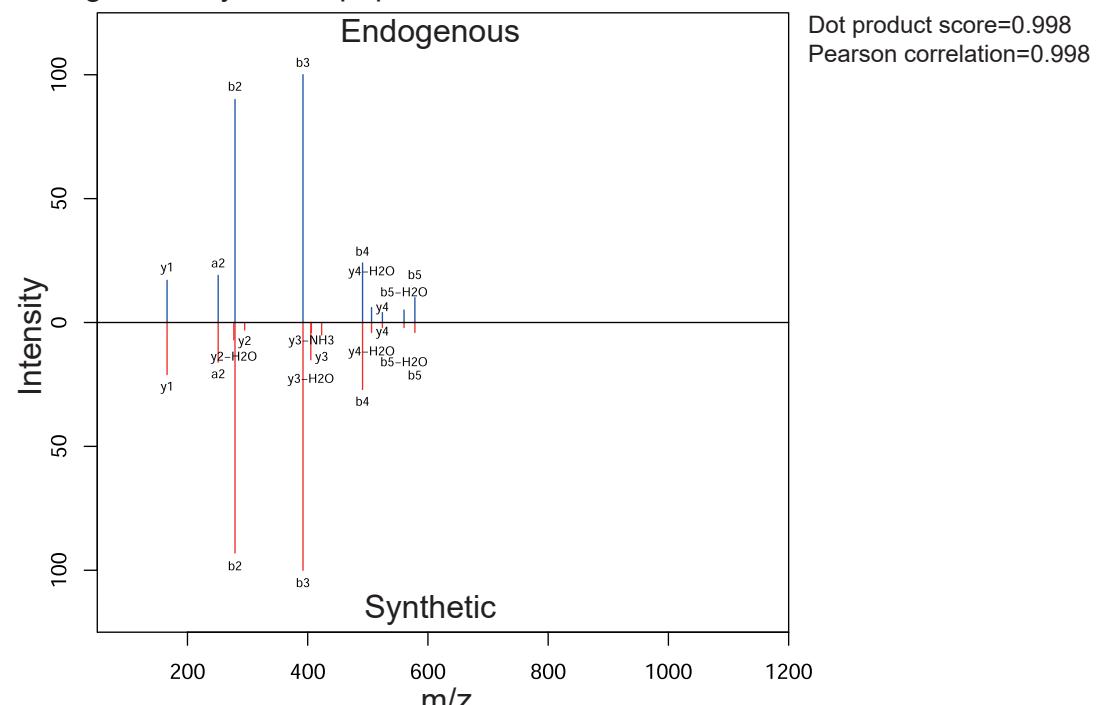
## Endogenous peptide



## Synthetic peptide

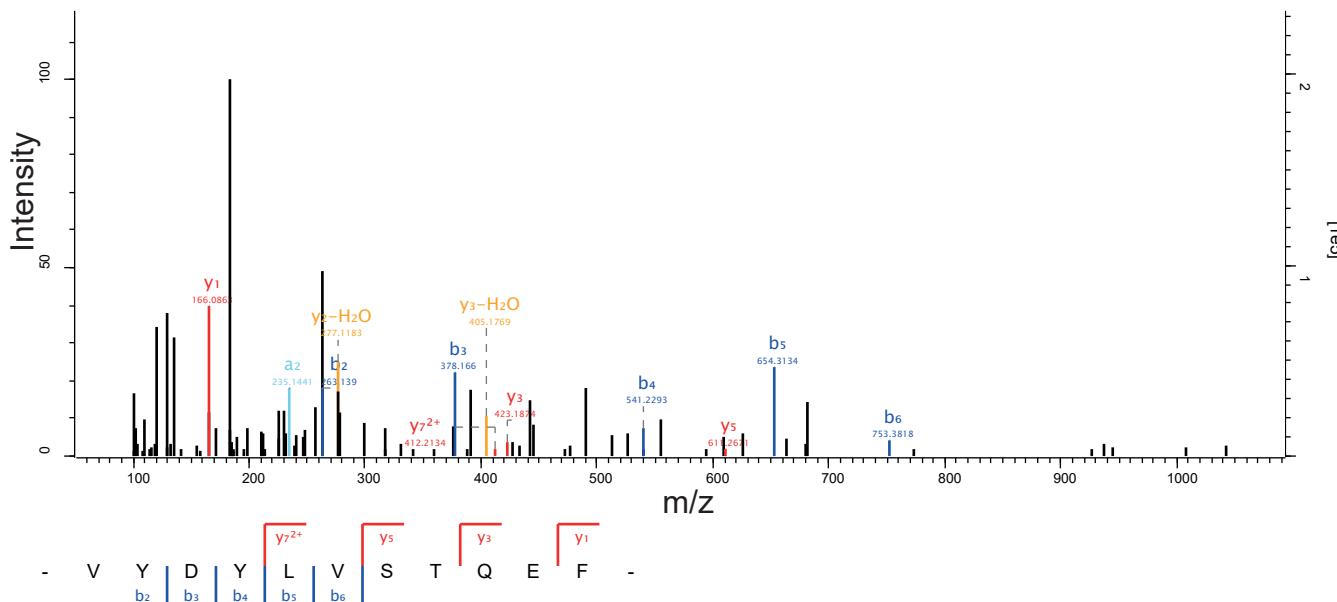


## Endogenous/Synthetic peptide correlation

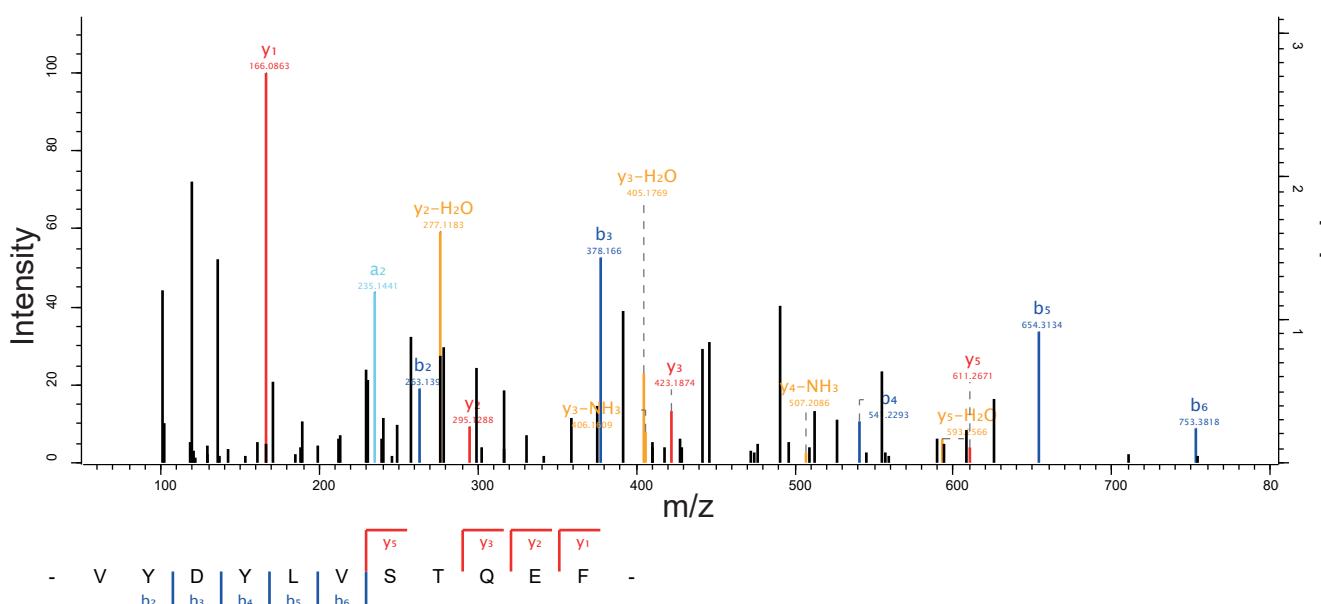


# B cell line 721.221 A\*24:02 with OE of nsp6 HLA-I VYDYLVSTQEF

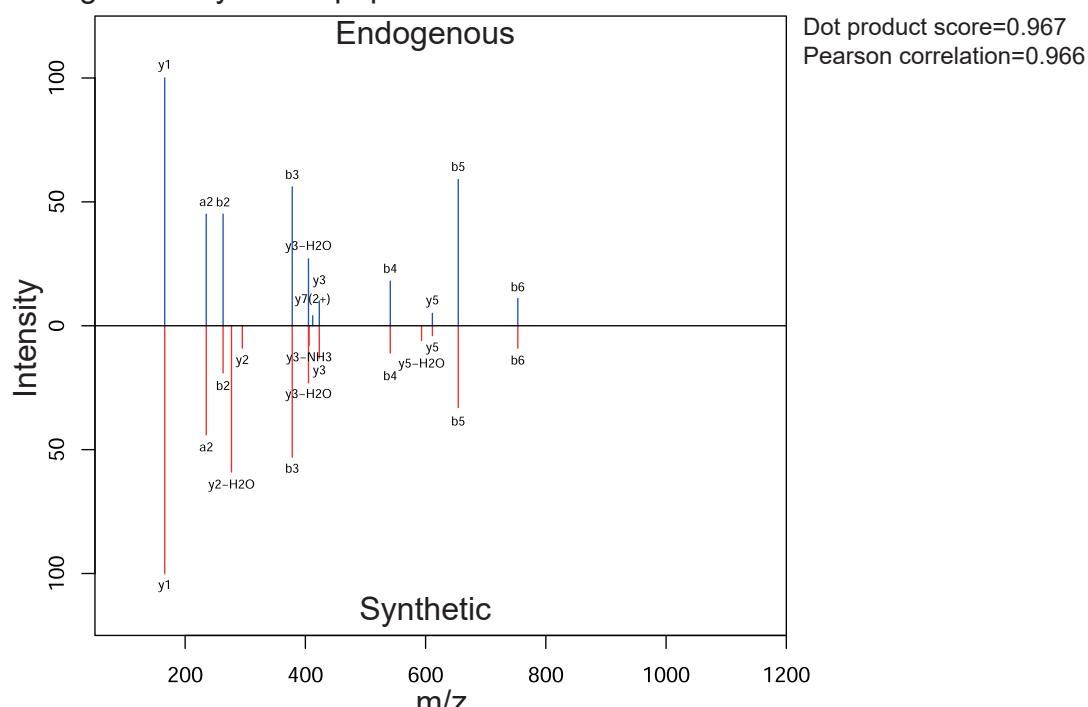
## Endogenous peptide



## Synthetic peptide

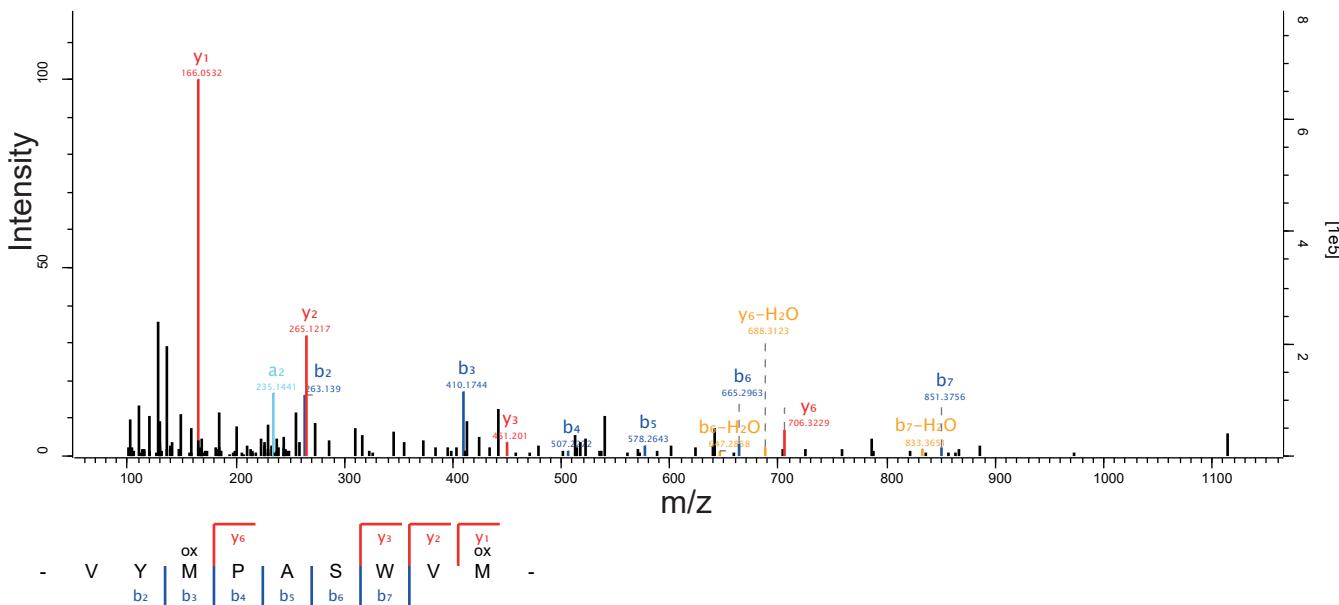


## Endogenous/Synthetic peptide correlation

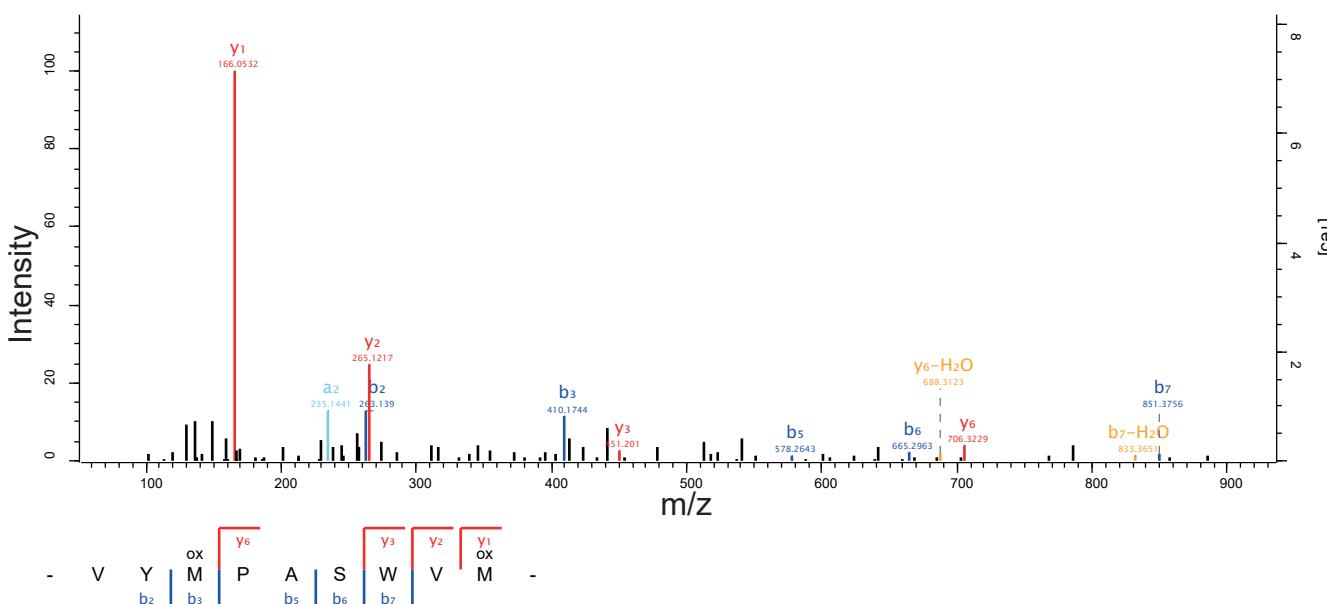


# B cell line 721.221 A\*24:02 with OE of nsp6 HLA-I VYMPASWVM

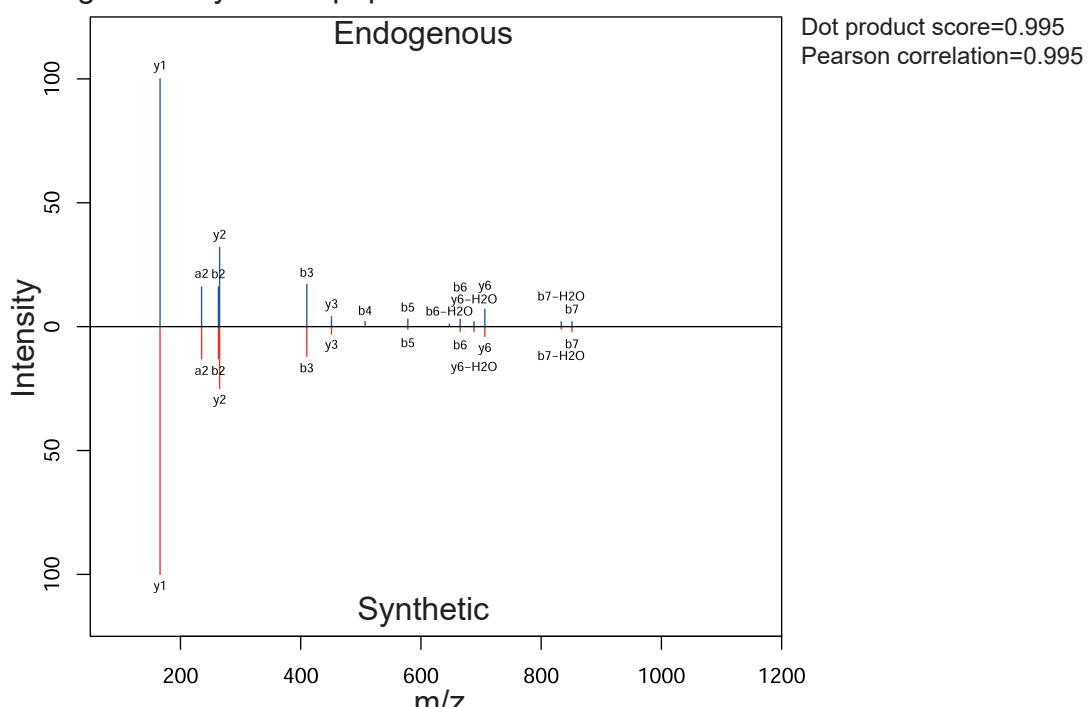
## Endogenous peptide



## Synthetic peptide

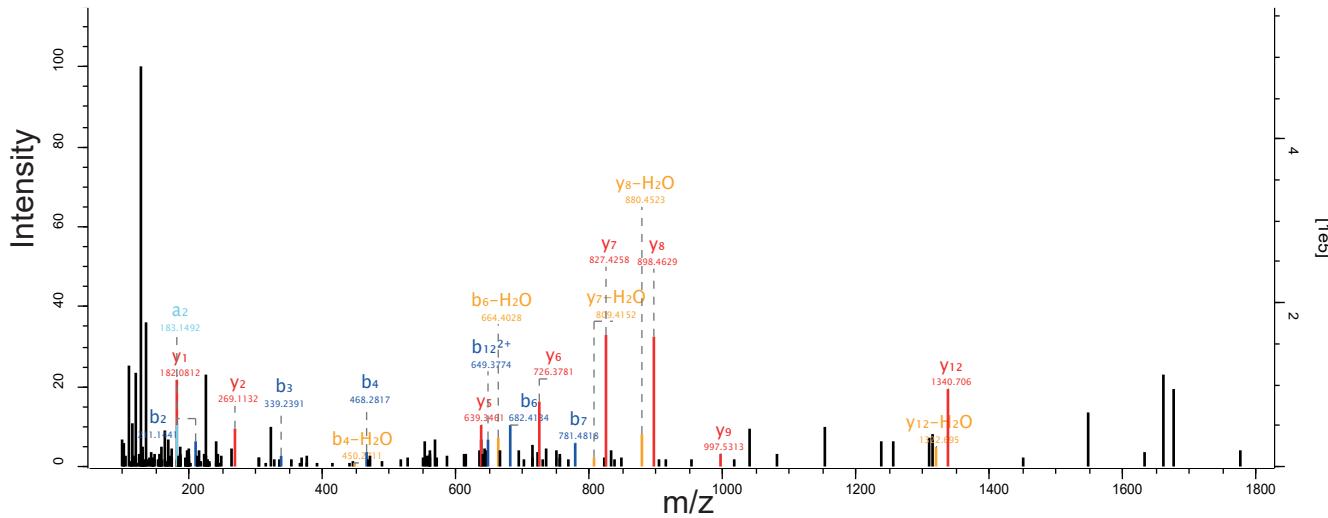


## Endogenous/Synthetic peptide correlation

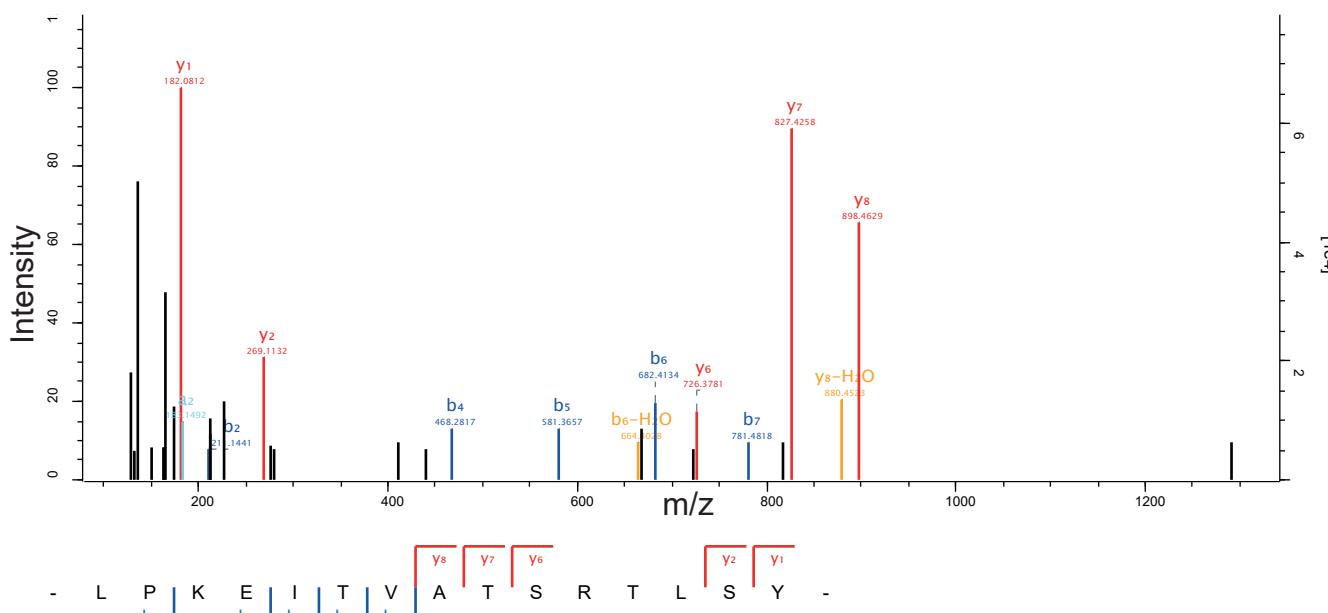


# B cell line 721.221 A\*24:02 with OE of Membrane HLA-II LPKEITVATSRTLSY

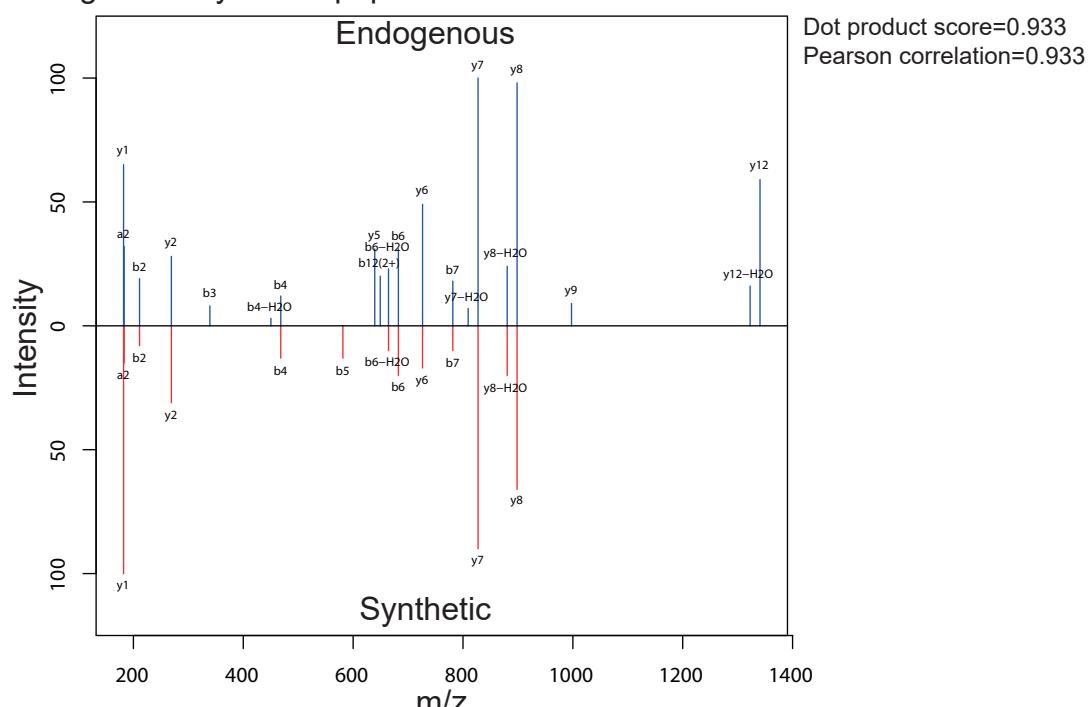
## Endogenous peptide



## Synthetic peptide

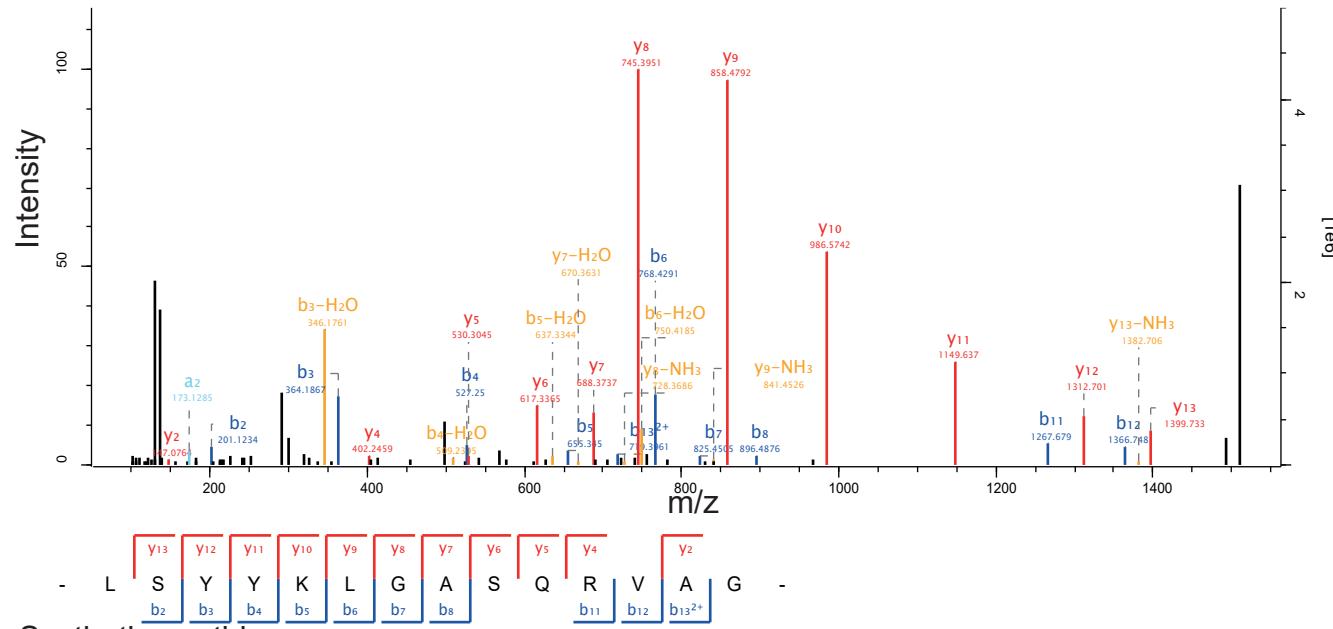


## Endogenous/Synthetic peptide correlation

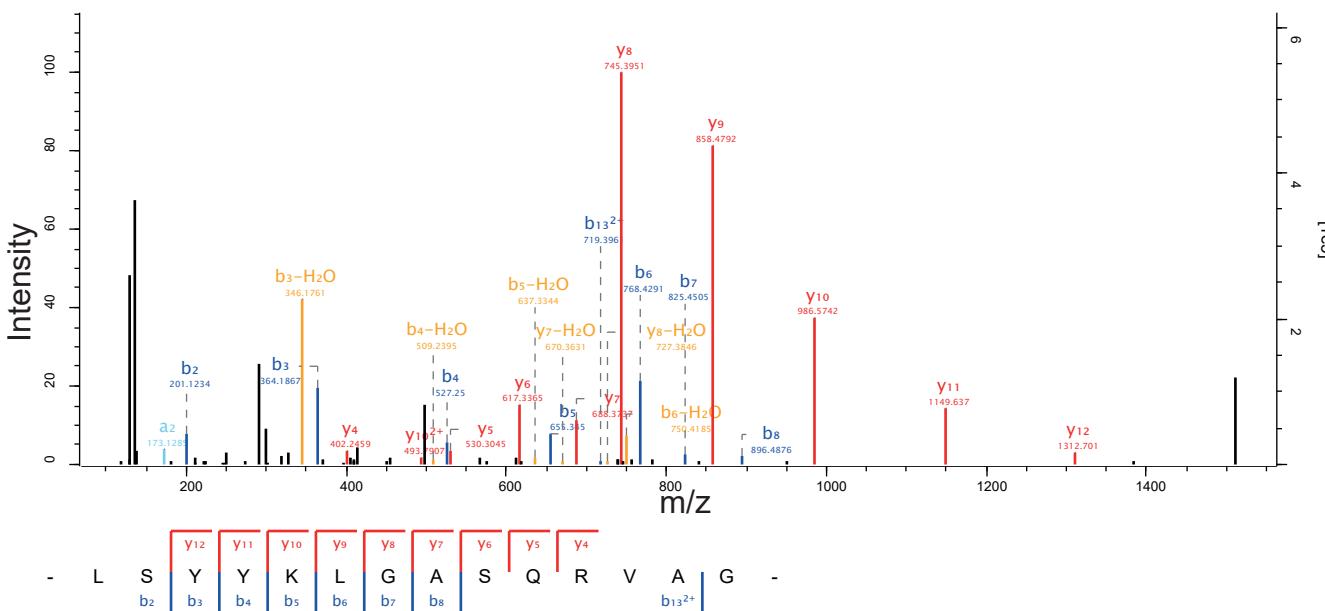


# B cell line 721.221 A\*24:02 with OE of Membrane HLA-II LSYYKLGASQRVAG

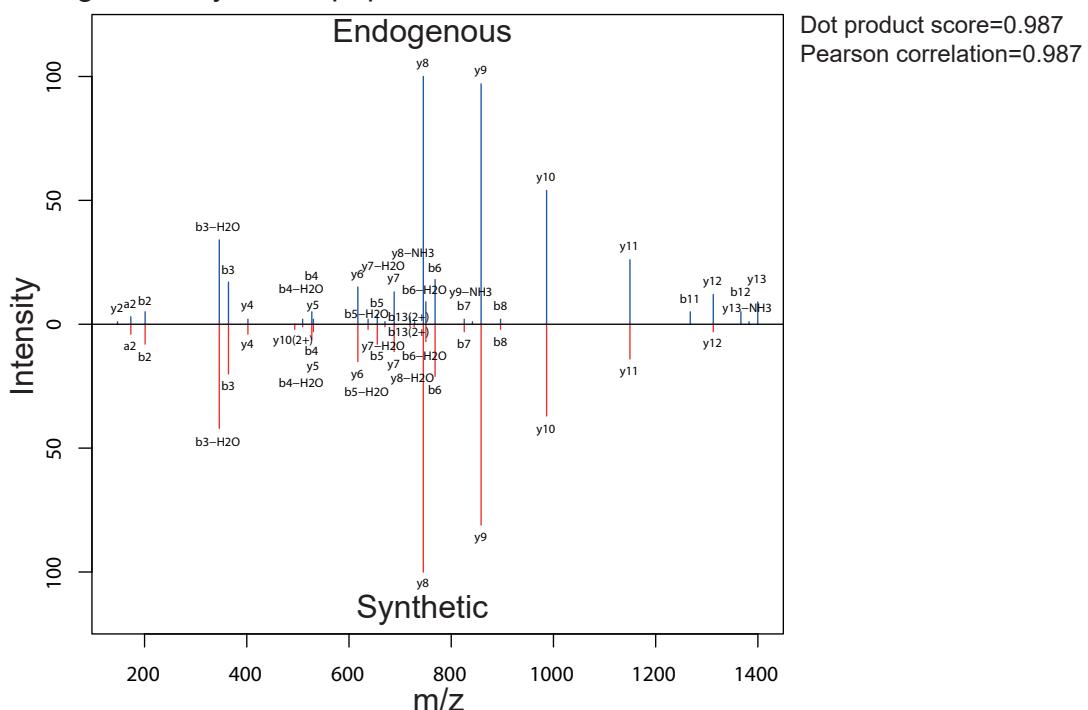
## Endogenous peptide



## Synthetic peptide

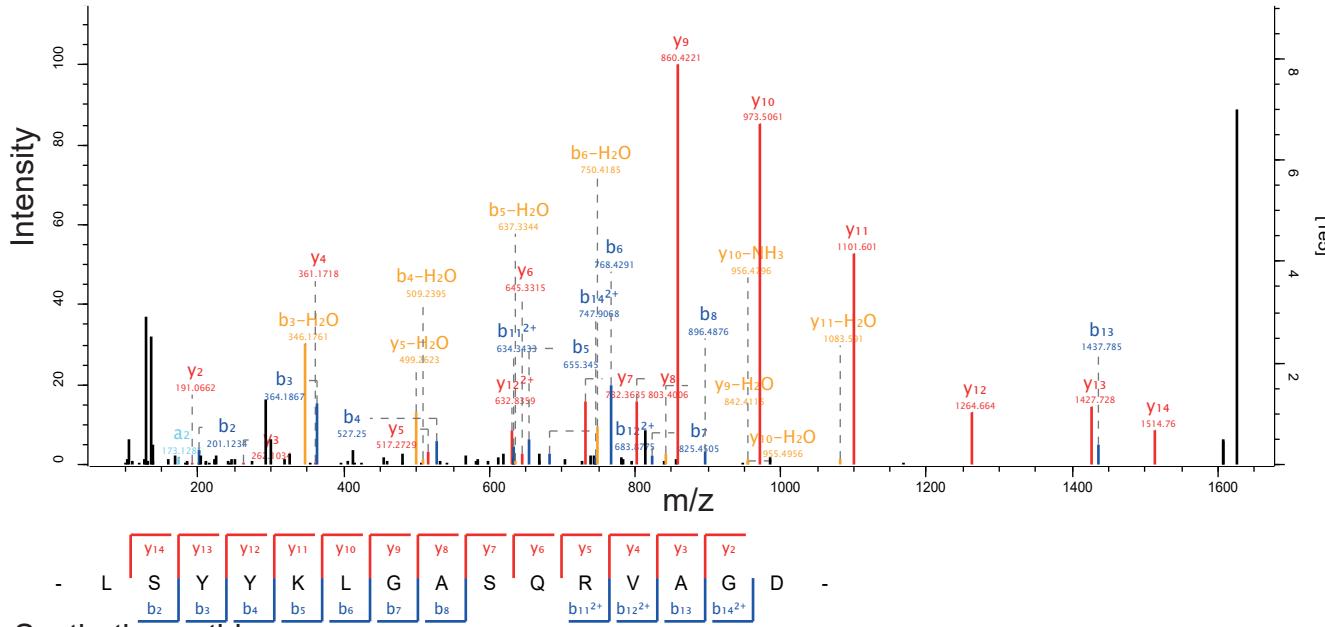


## Endogenous/Synthetic peptide correlation

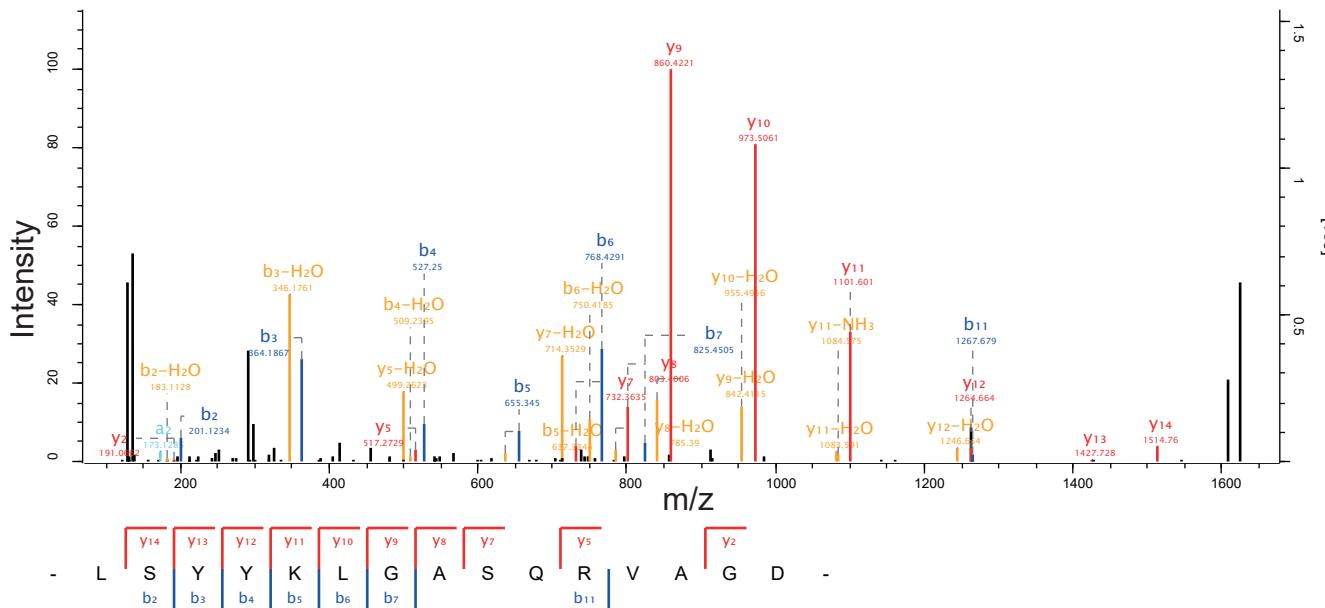


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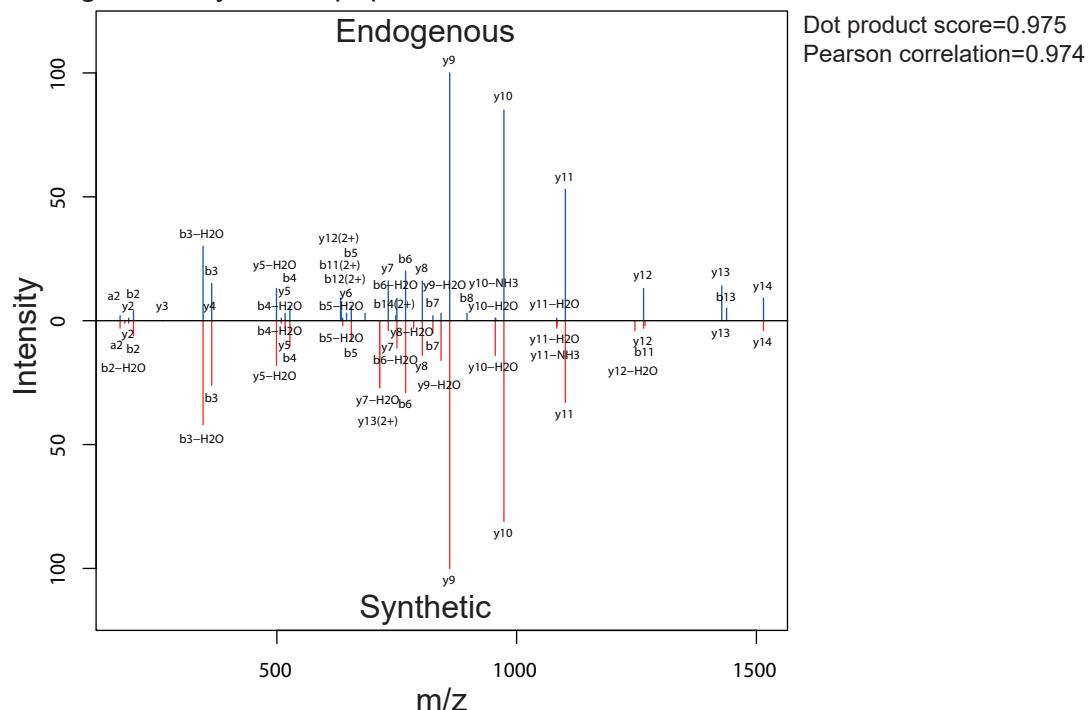
## Endogenous peptide



## Synthetic peptide

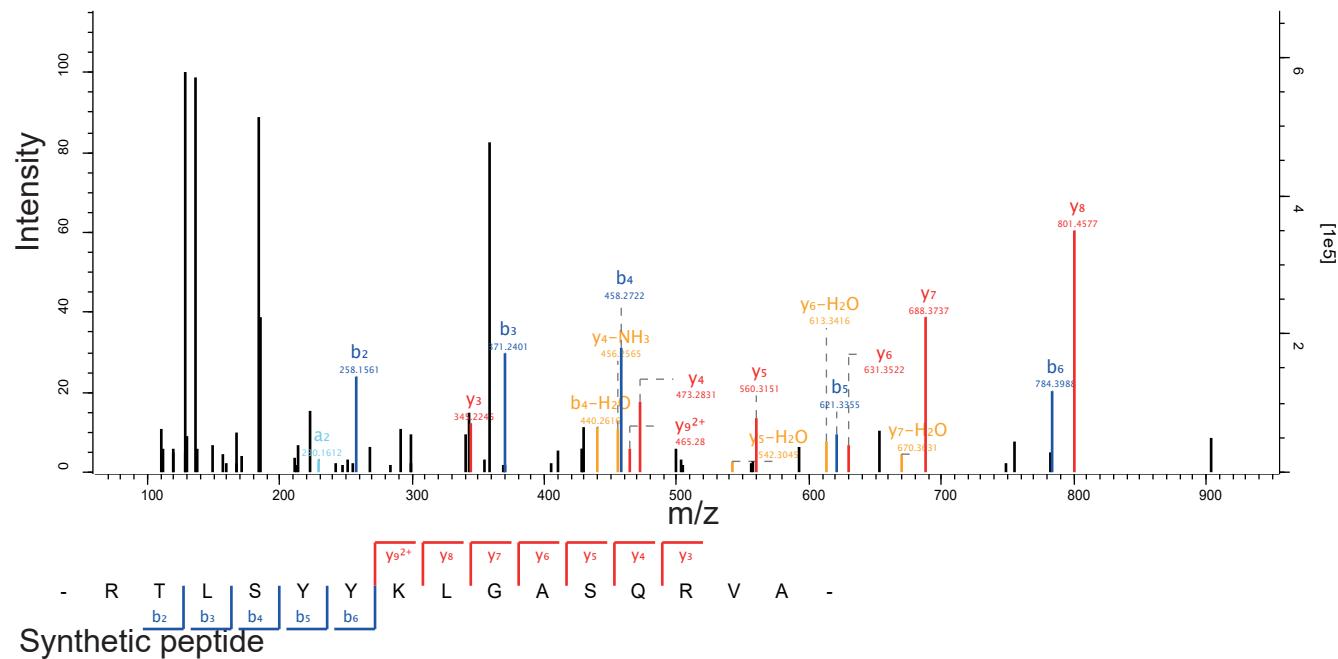


## Endogenous/Synthetic peptide correlation

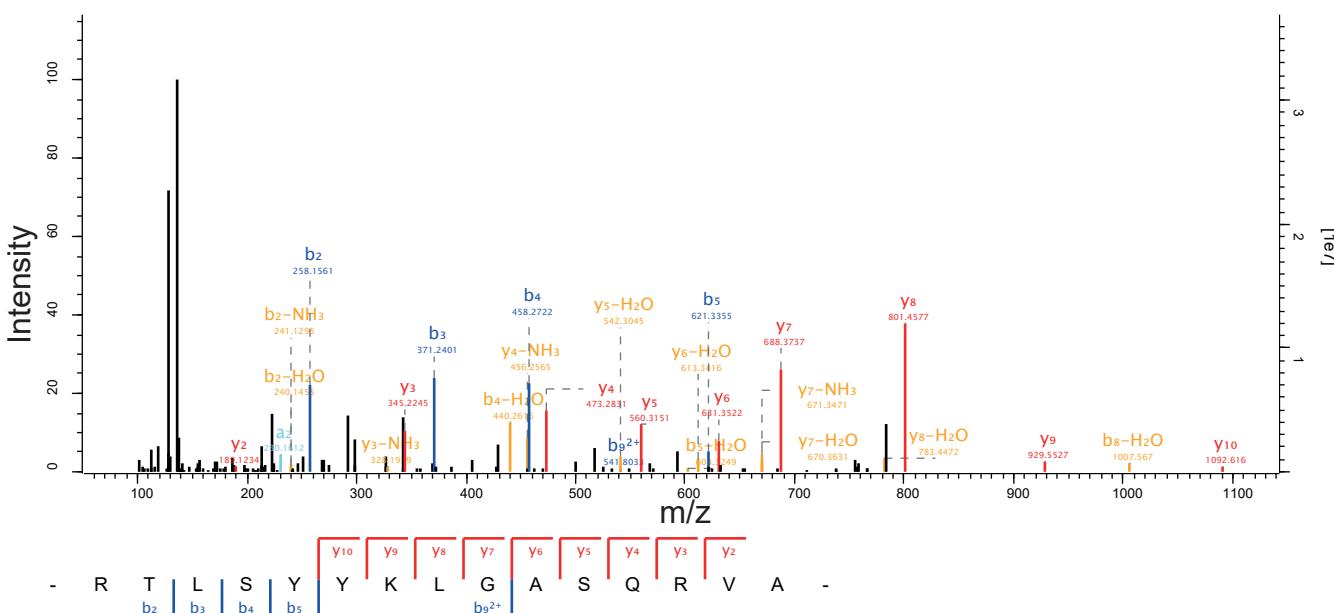


# B cell line 721.221 A\*24:02 with OE of Membrane HLA-II RTLSYYKLGASQRVA

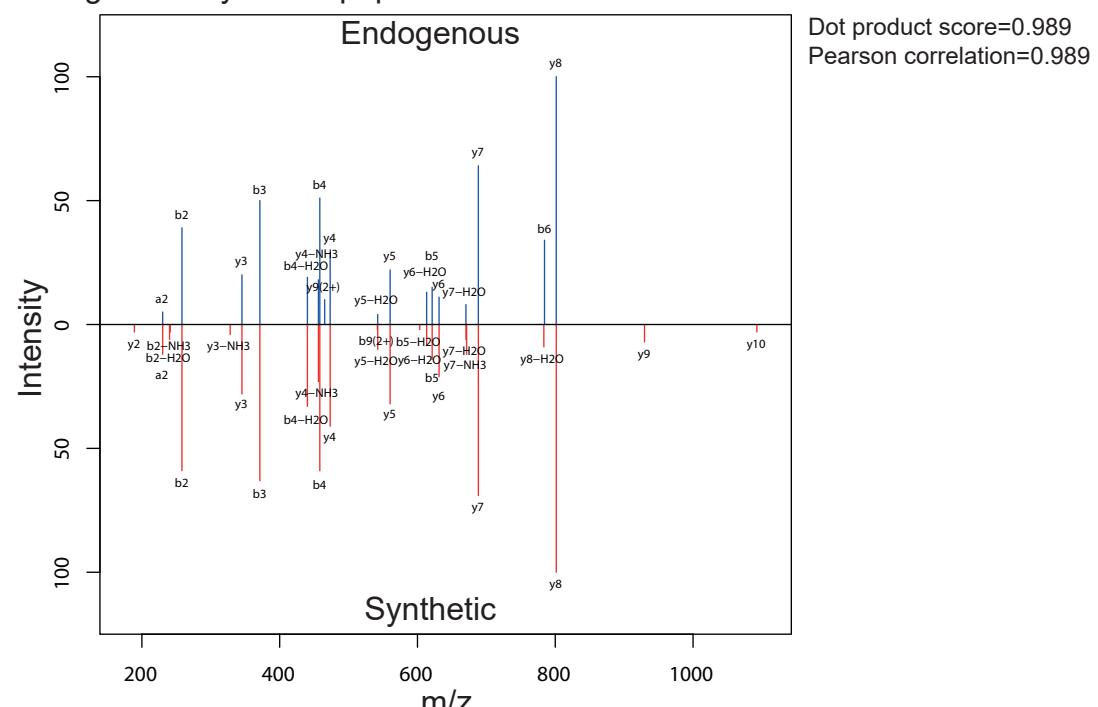
## Endogenous peptide



## Synthetic peptide

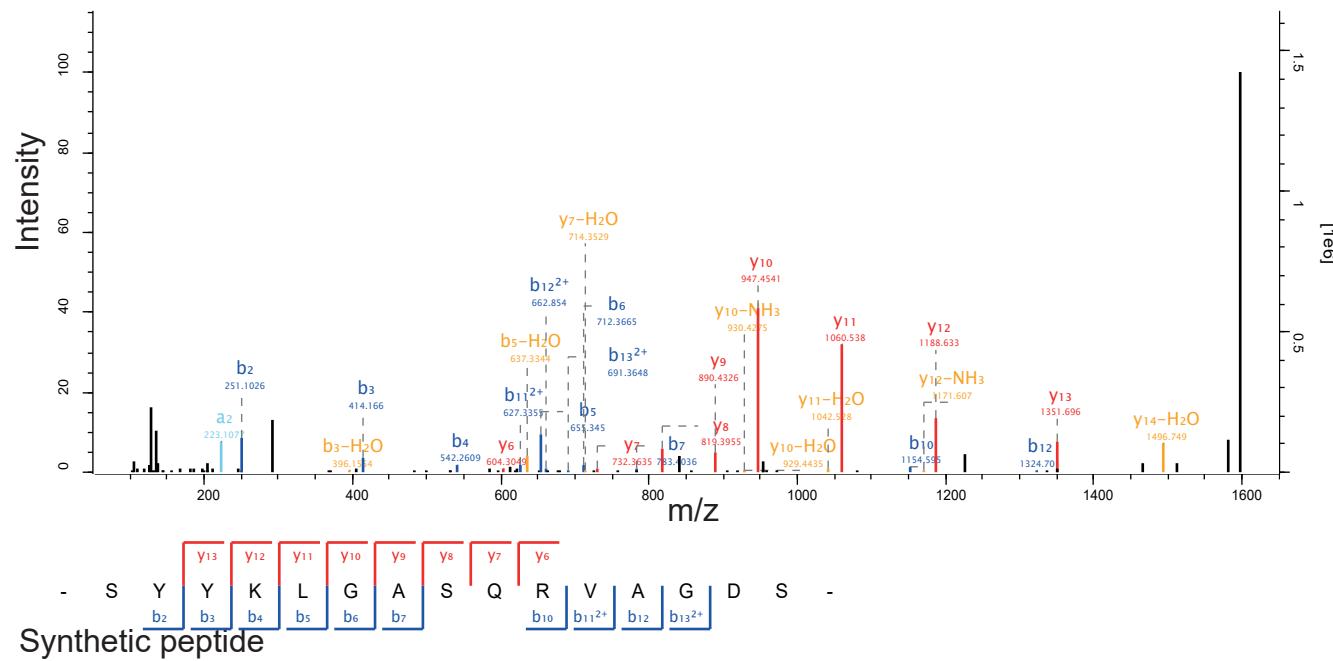


## Endogenous/Synthetic peptide correlation

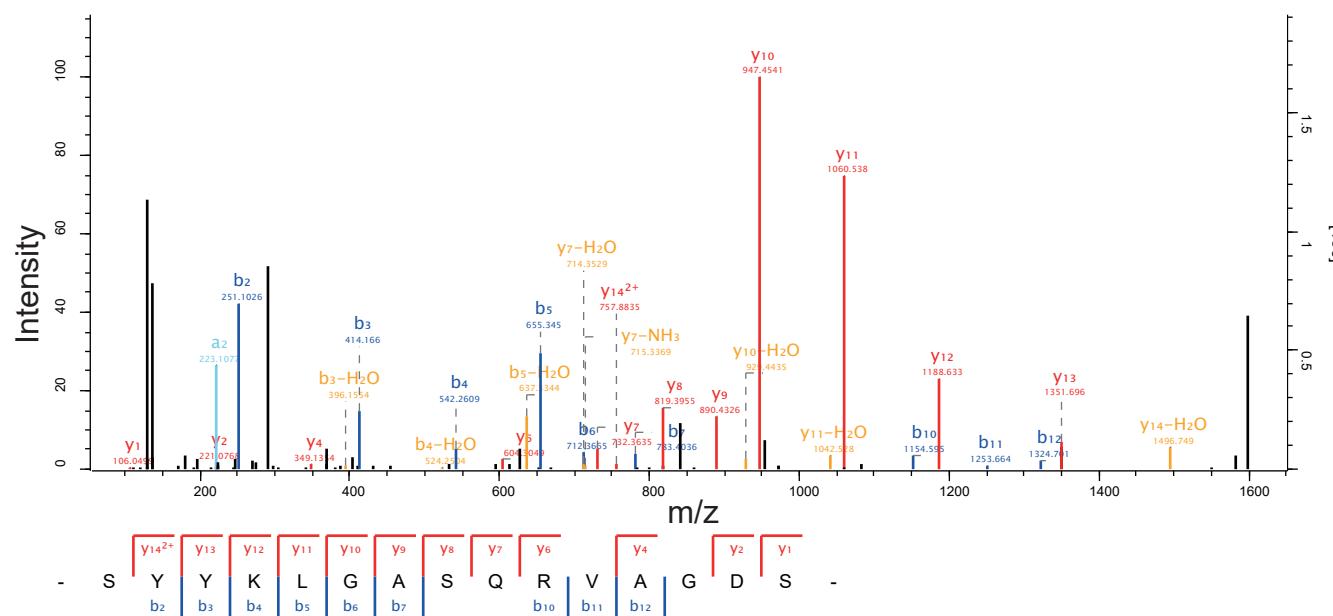


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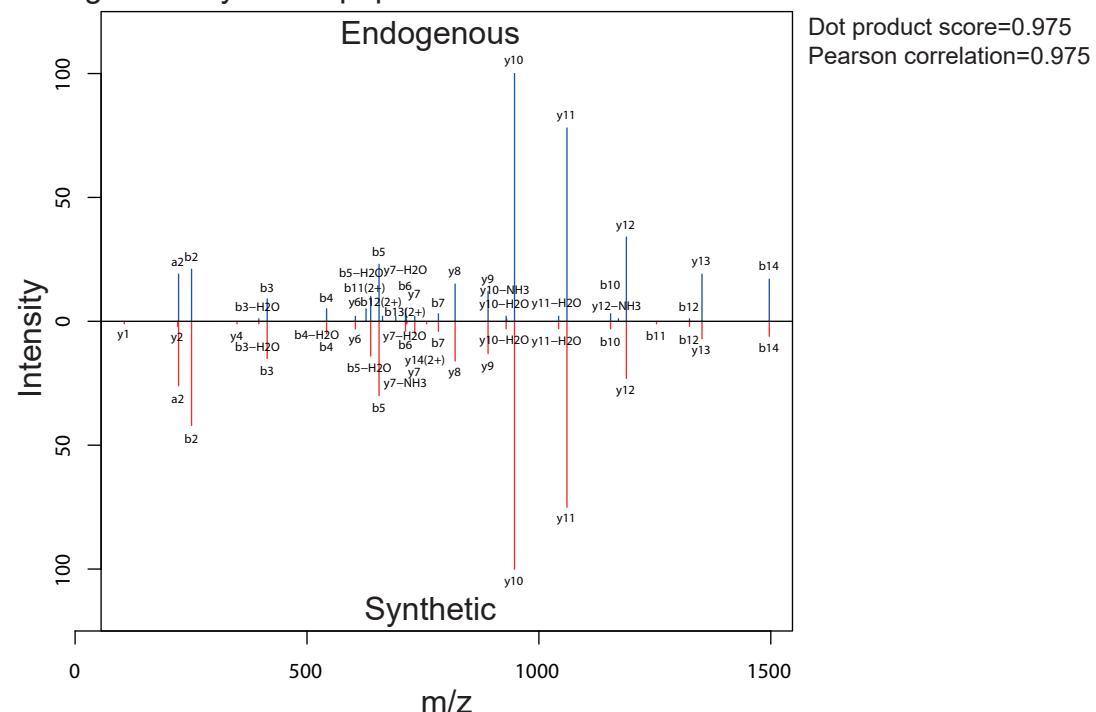
## Endogenous peptide



## Synthetic peptide

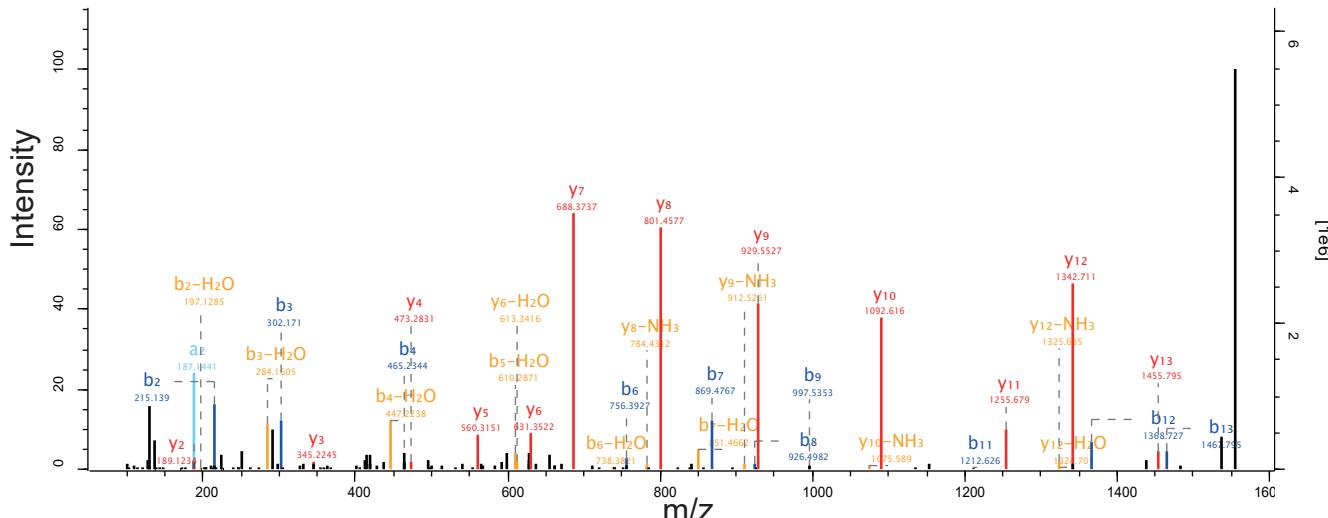


## Endogenous/Synthetic peptide correlation

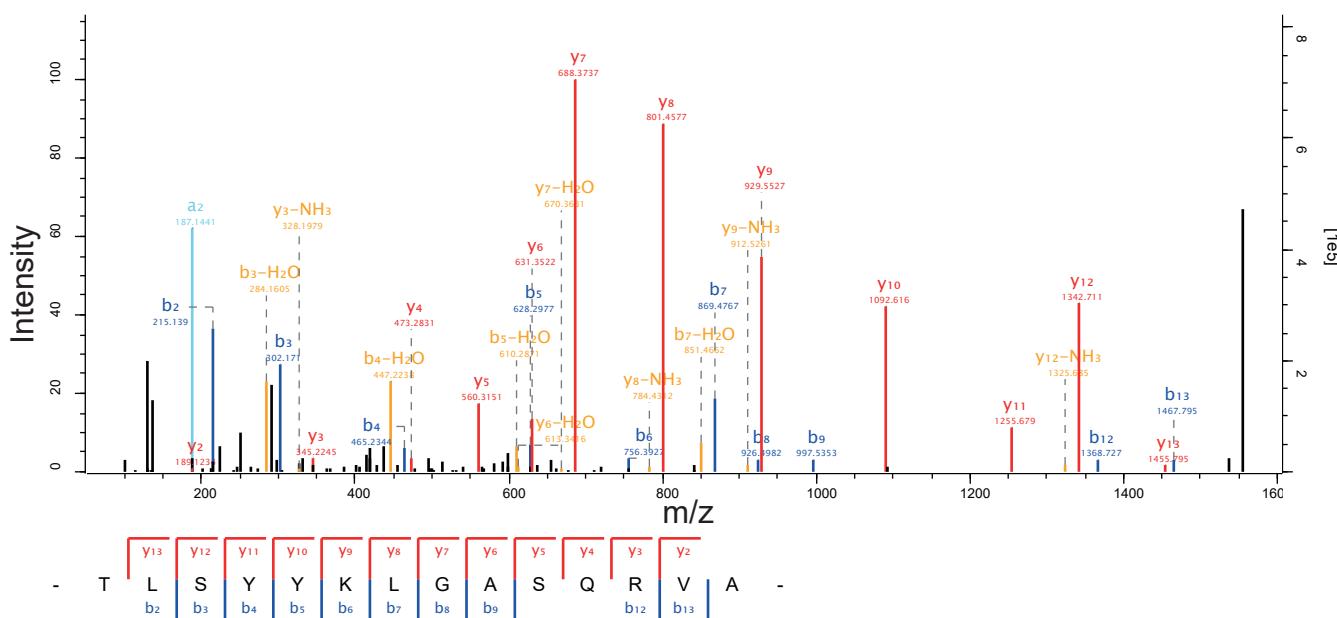


# B cell line 721.221 A\*24:02 with OE of Membrane HLA-II TLSYYKLGASQRVA

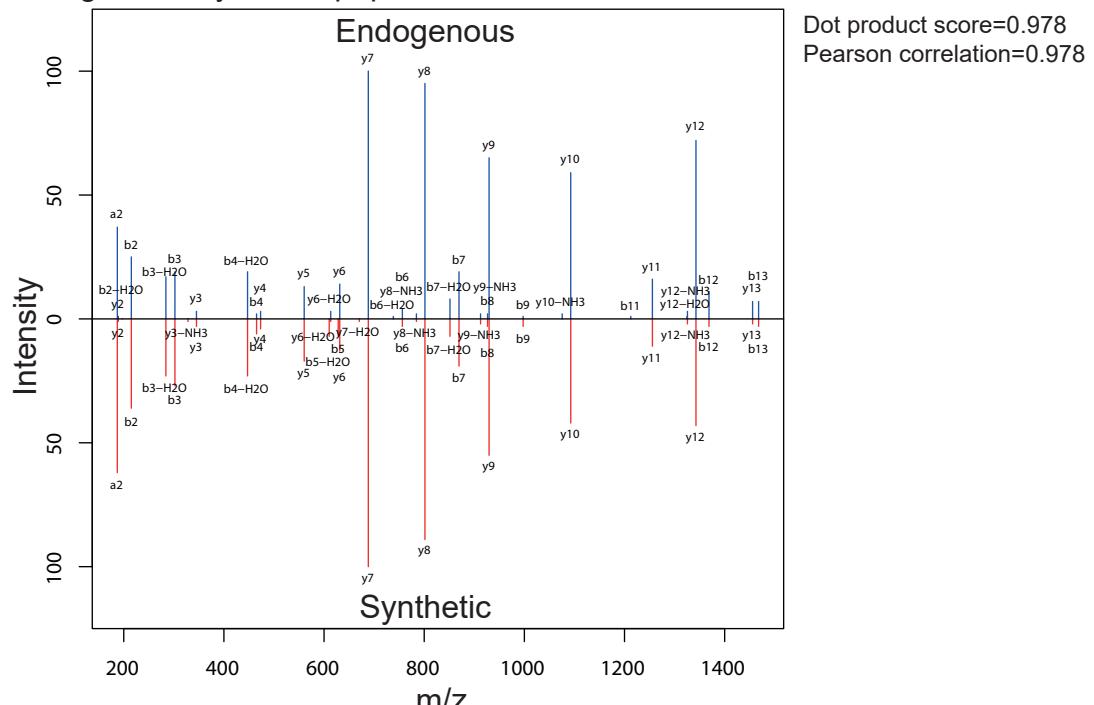
## Endogenous peptide



## Synthetic peptide

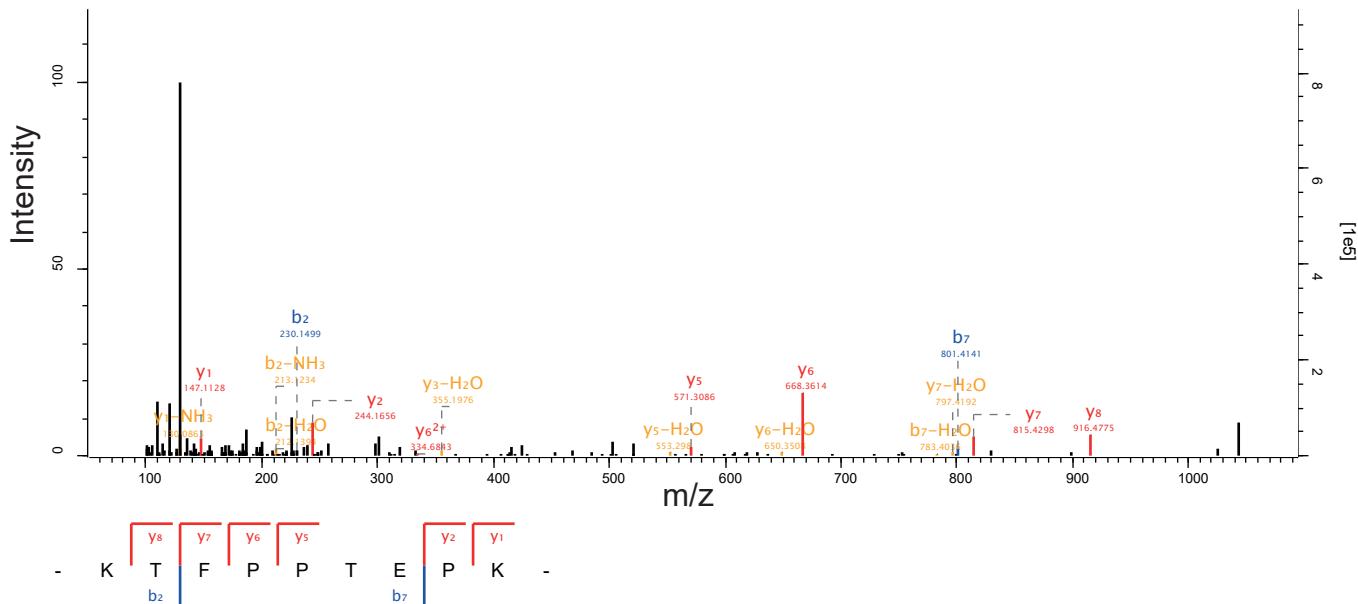


## Endogenous/Synthetic peptide correlation

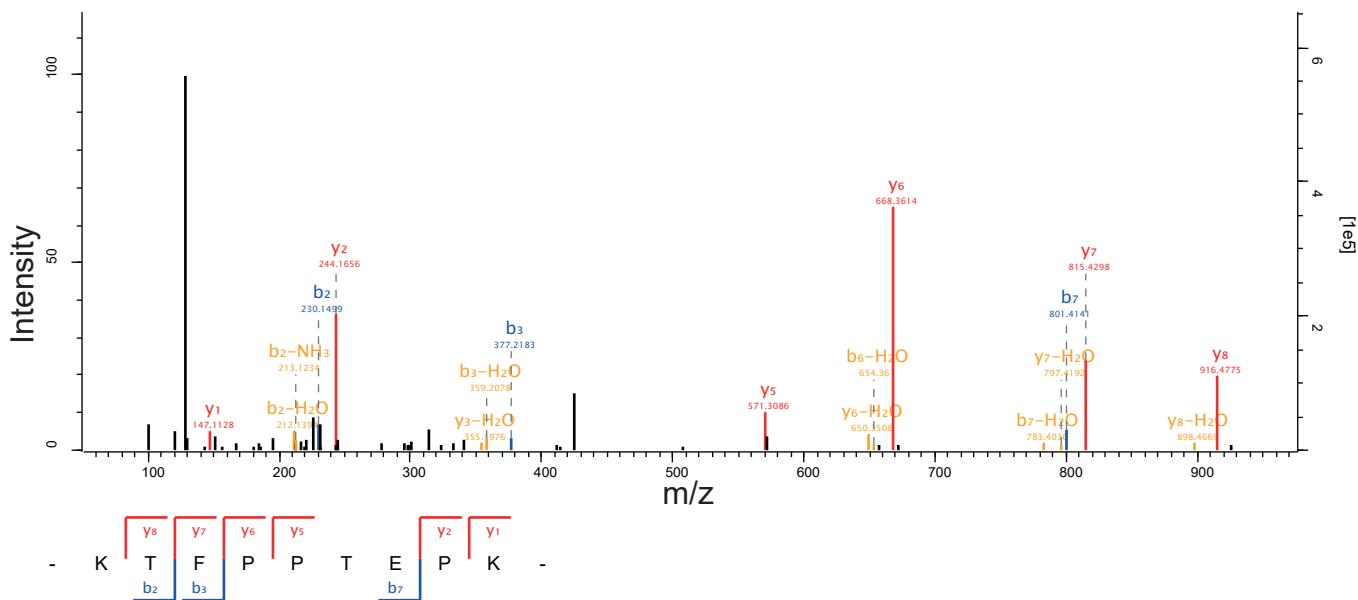


# B cell line 721.221 A\*03:01 with OE of Nucleocapsid HLA-I KTFPPTEPK

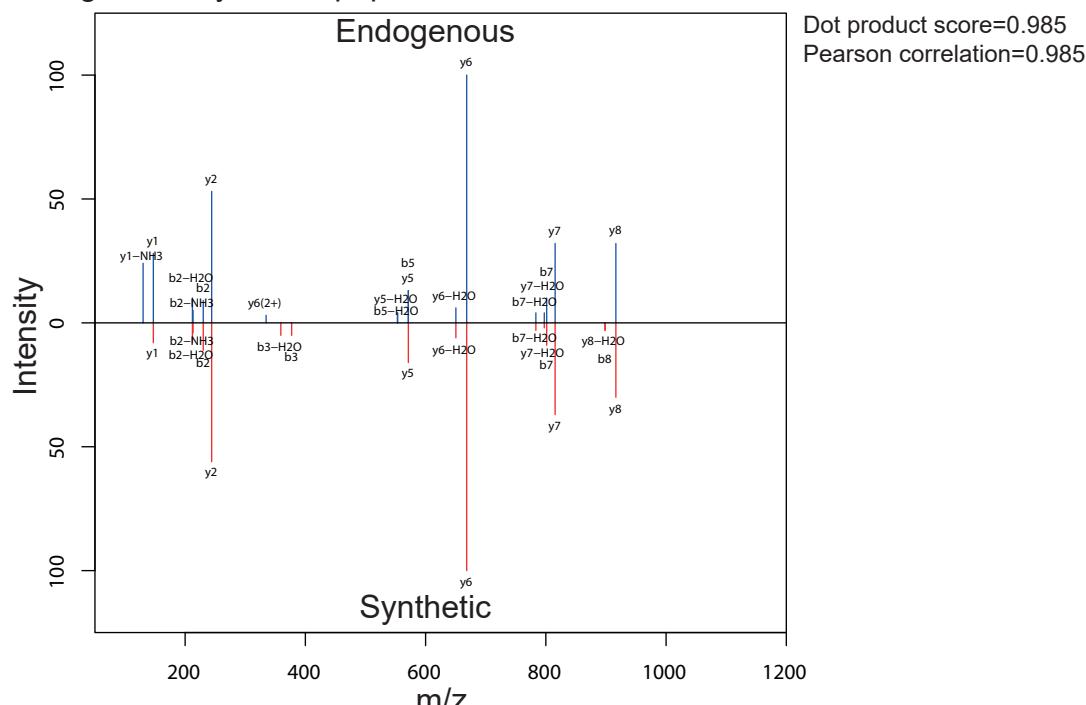
## Endogenous peptide



## Synthetic peptide

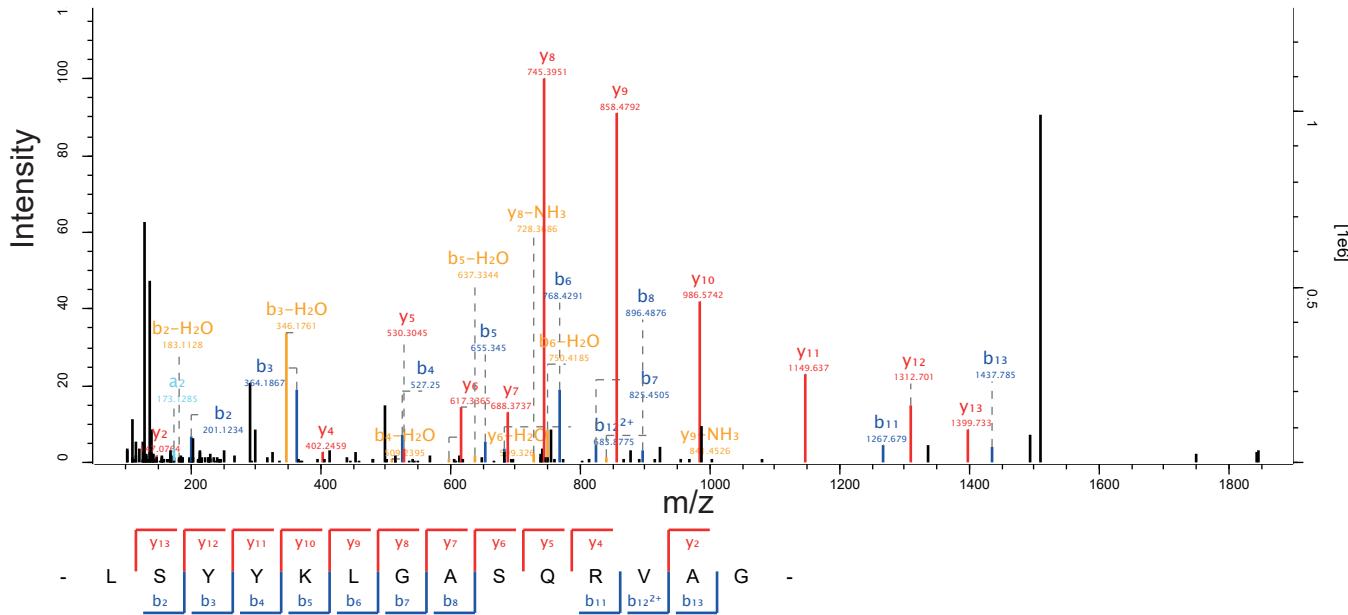


## Endogenous/Synthetic peptide correlation

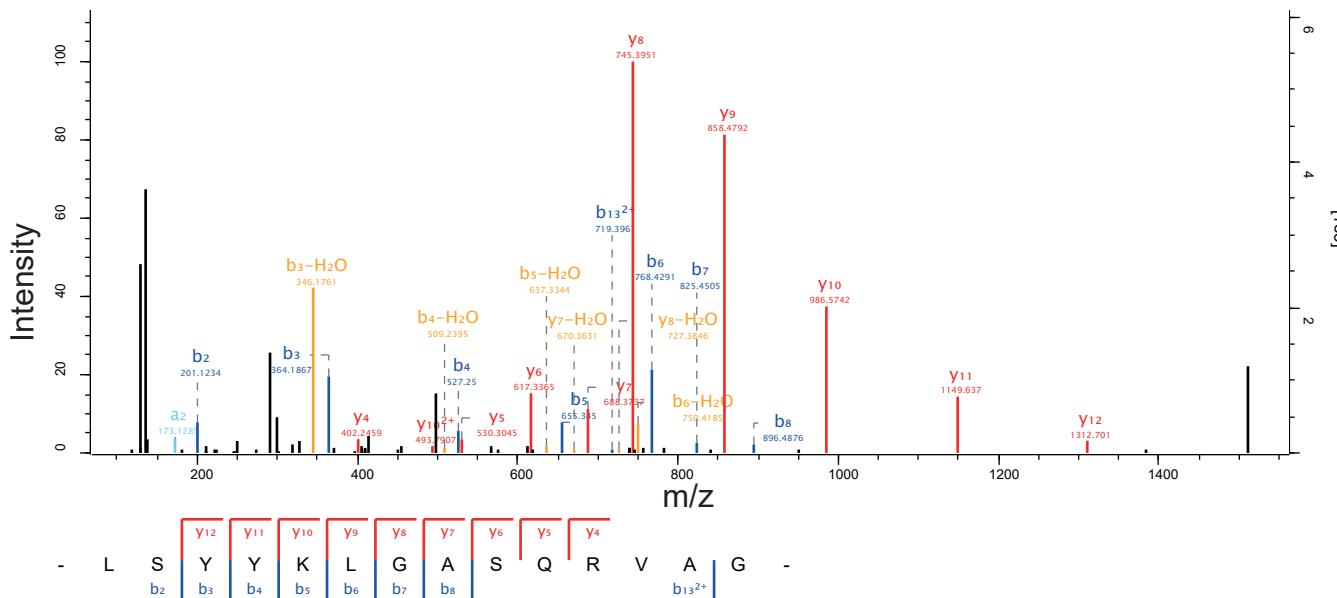


# B cell line 721.221 A\*03:01 with OE of Membrane HLA-II LSYYKLGASQRVAG

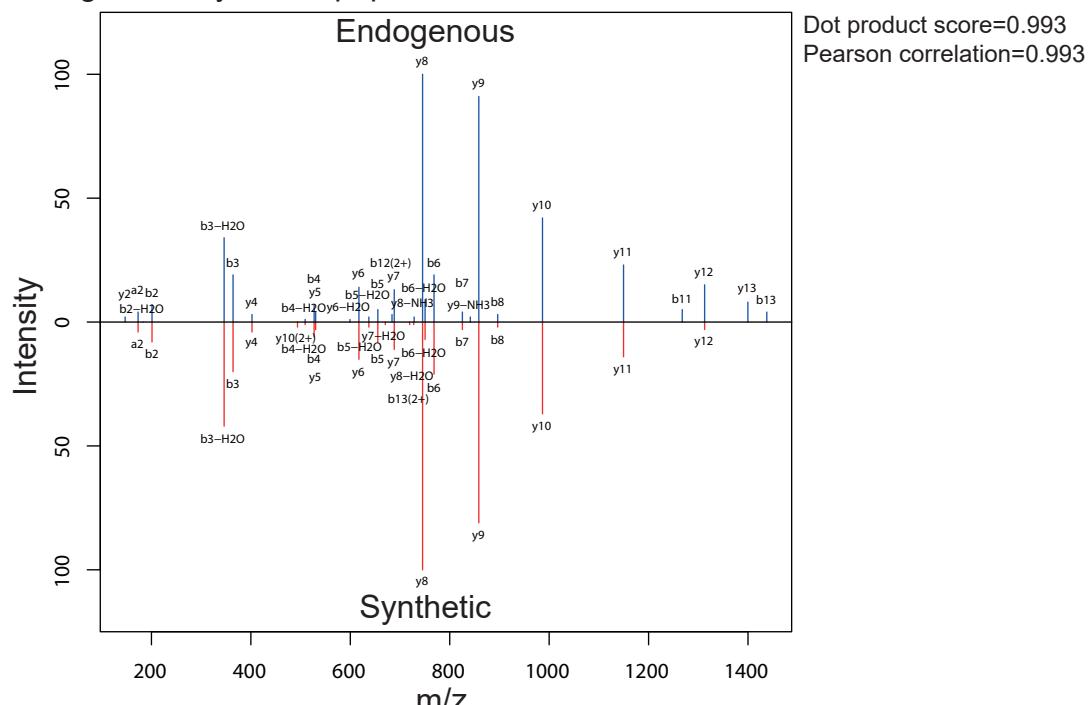
## Endogenous peptide



## Synthetic peptide

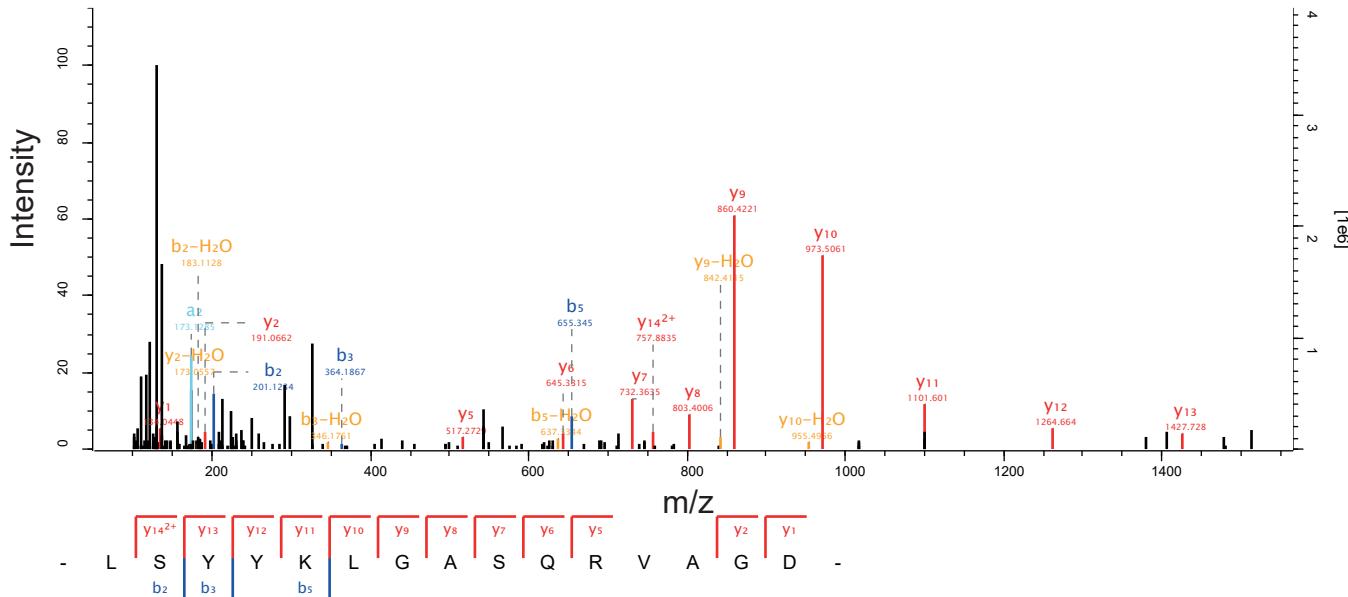


## Endogenous/Synthetic peptide correlation

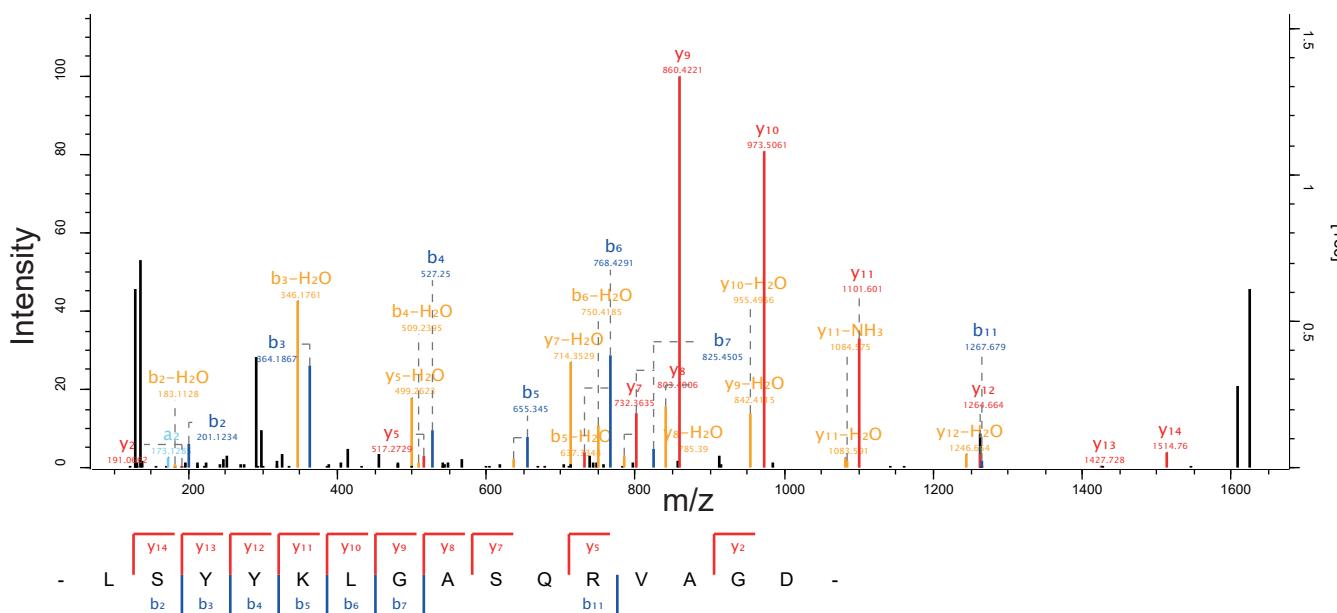


# B cell line 721.221 A\*03:01 with OE of Membrane HLA-II LSYYKLGASQRVAGD

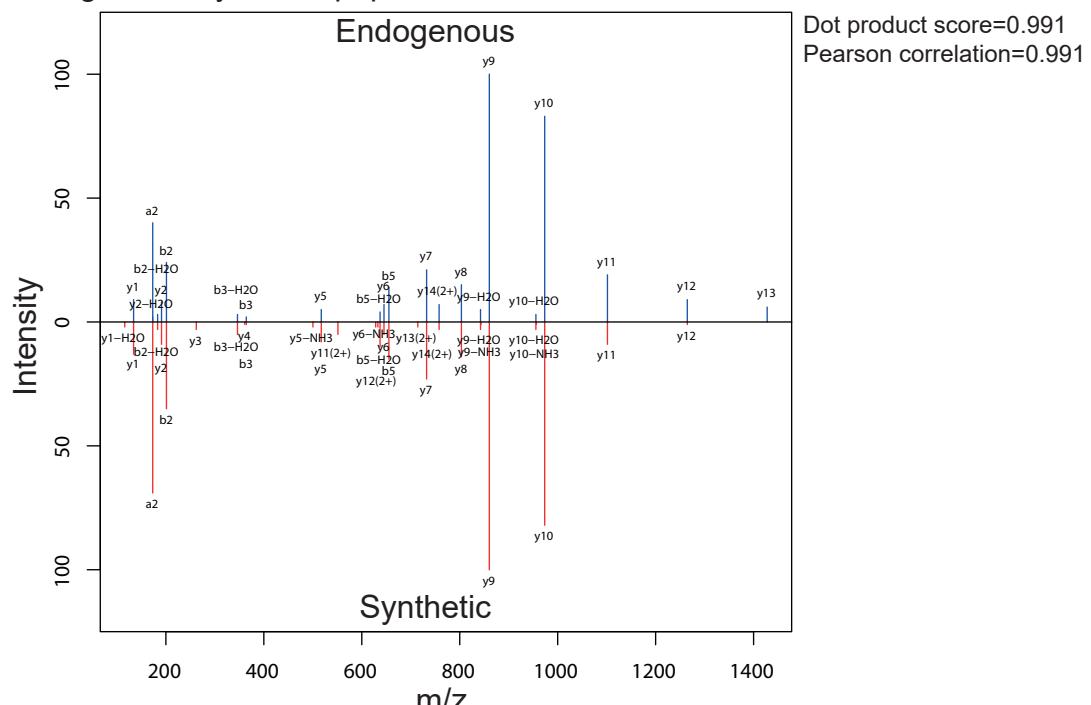
## Endogenous peptide



## Synthetic peptide

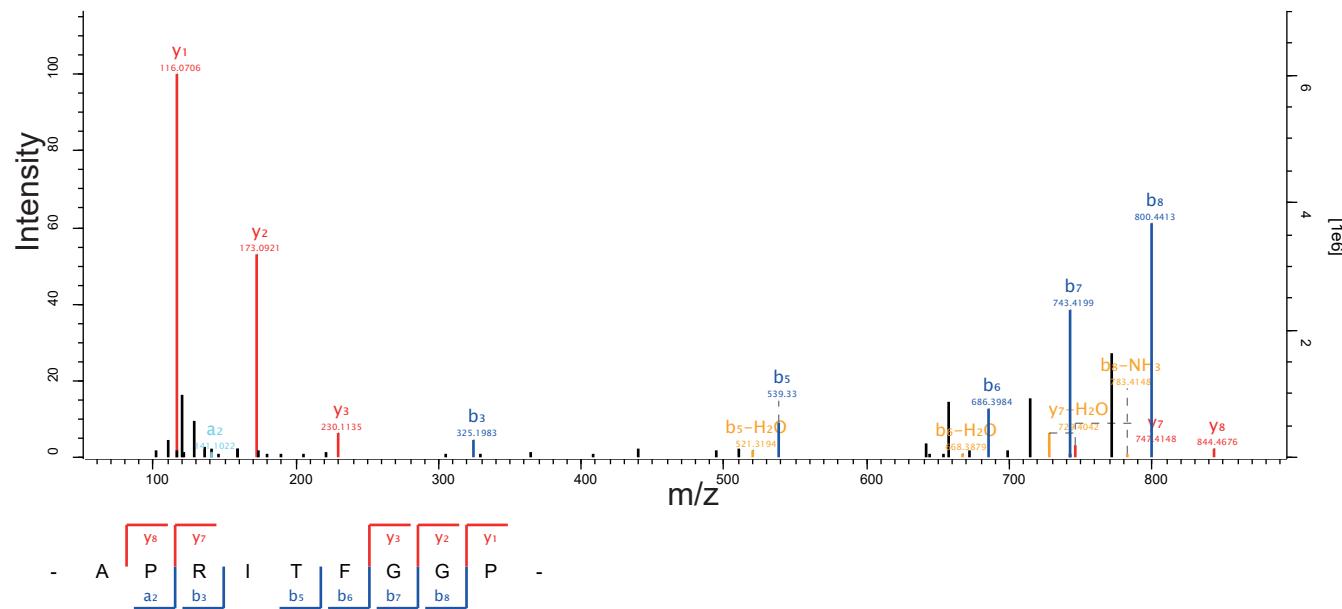


## Endogenous/Synthetic peptide correlation

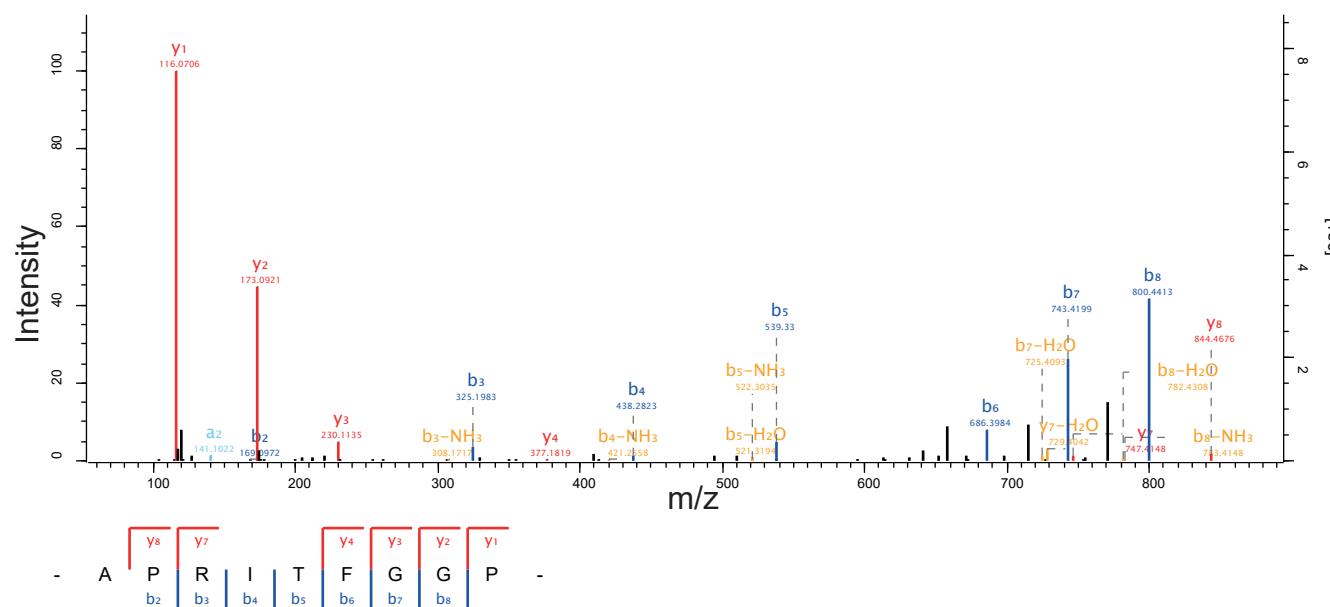


# B cell line 721.221 B\*07:02 with OE of Nucleocapsid HLA-I APRITFGGP

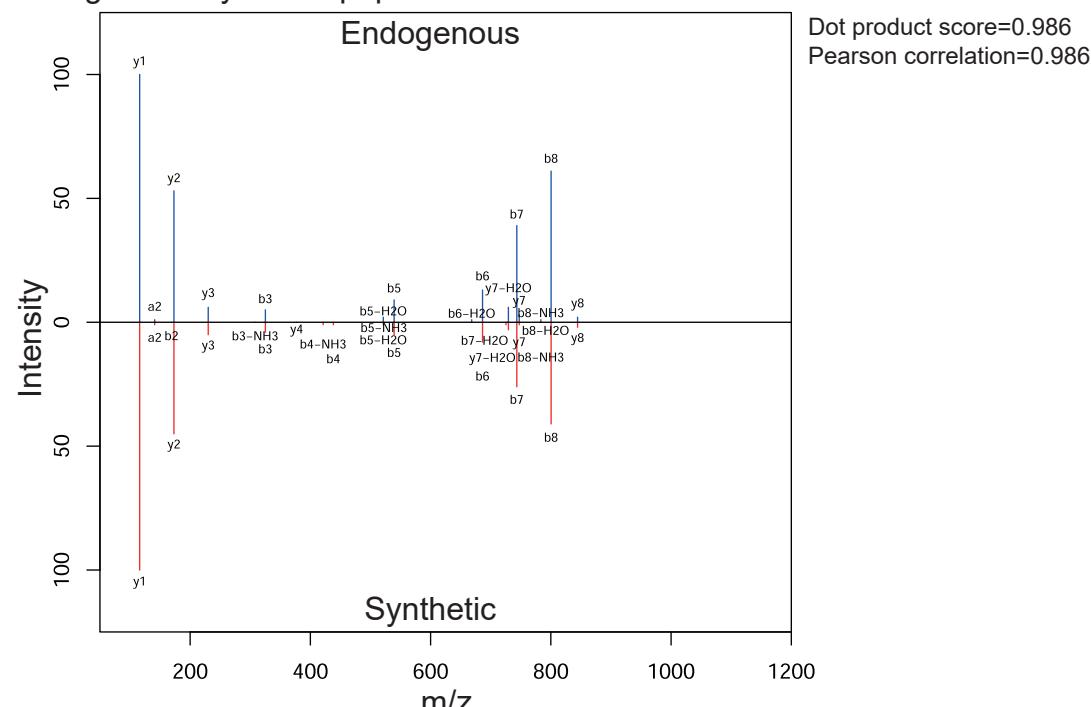
## Endogenous peptide



## Synthetic peptide

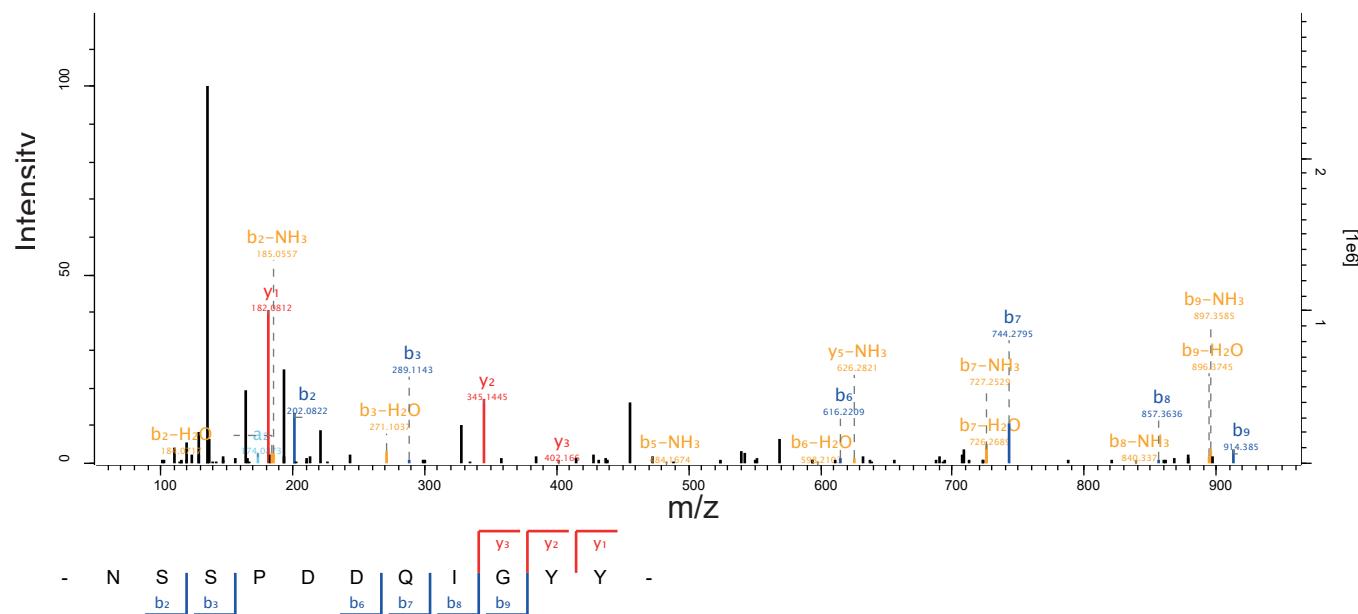


## Endogenous/Synthetic peptide correlation

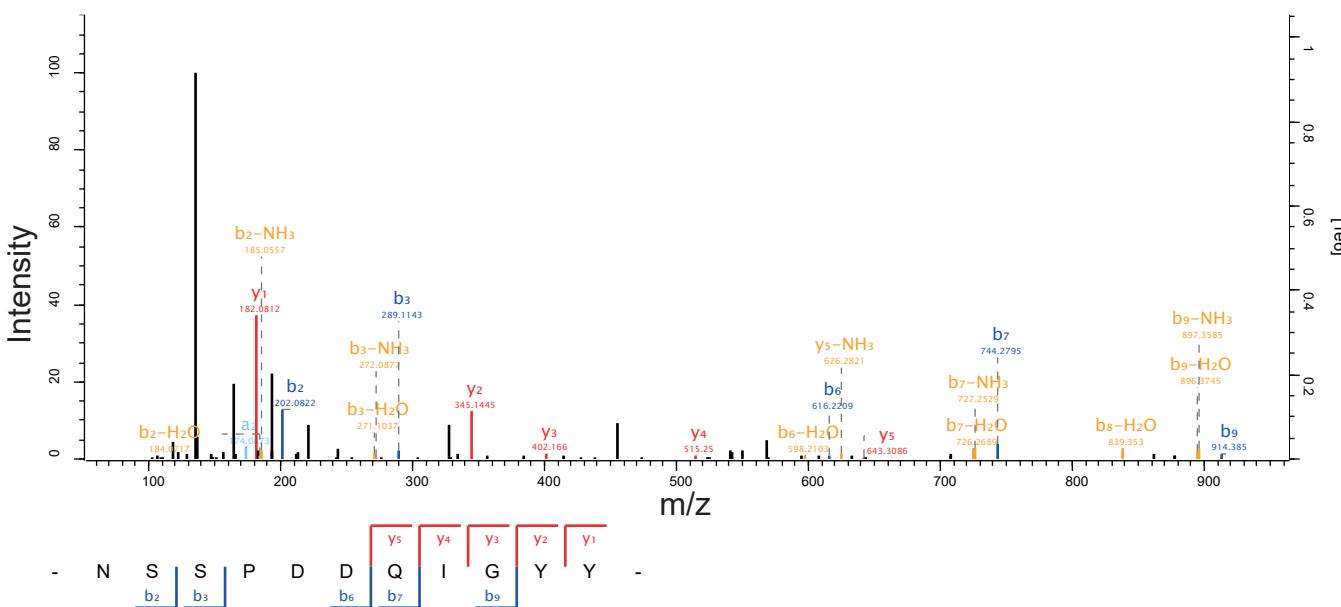


# B cell line IHW01070 with OE of Nucleocapsid HLA-I NSSPDDQIGYY

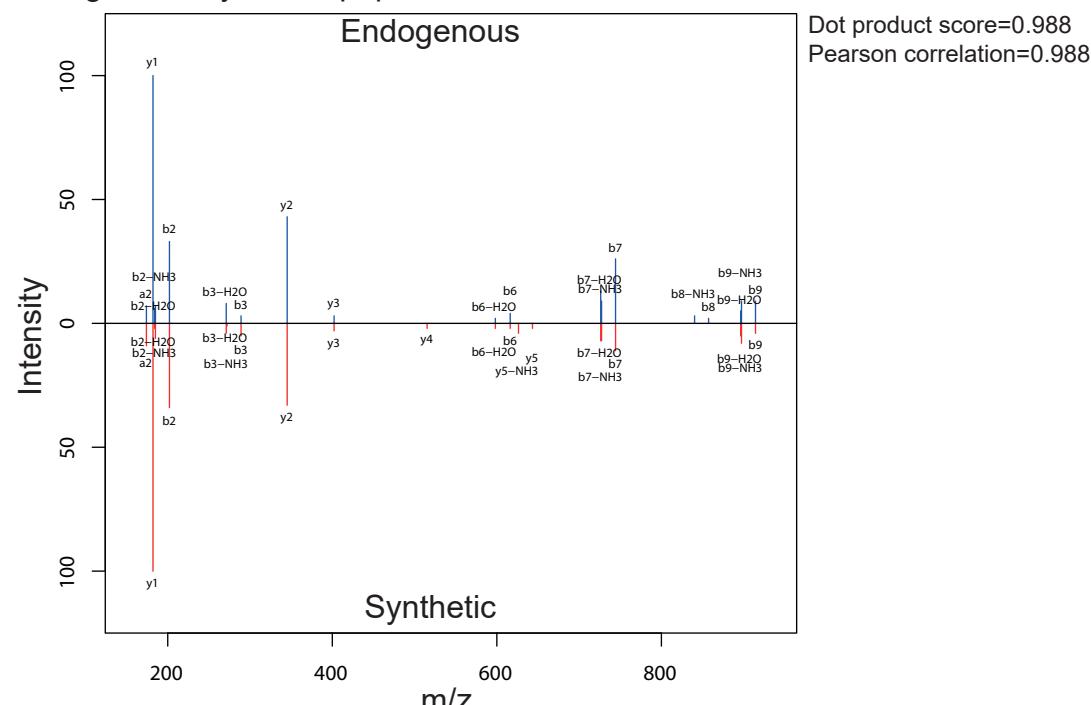
## Endogenous peptide



## Synthetic peptide

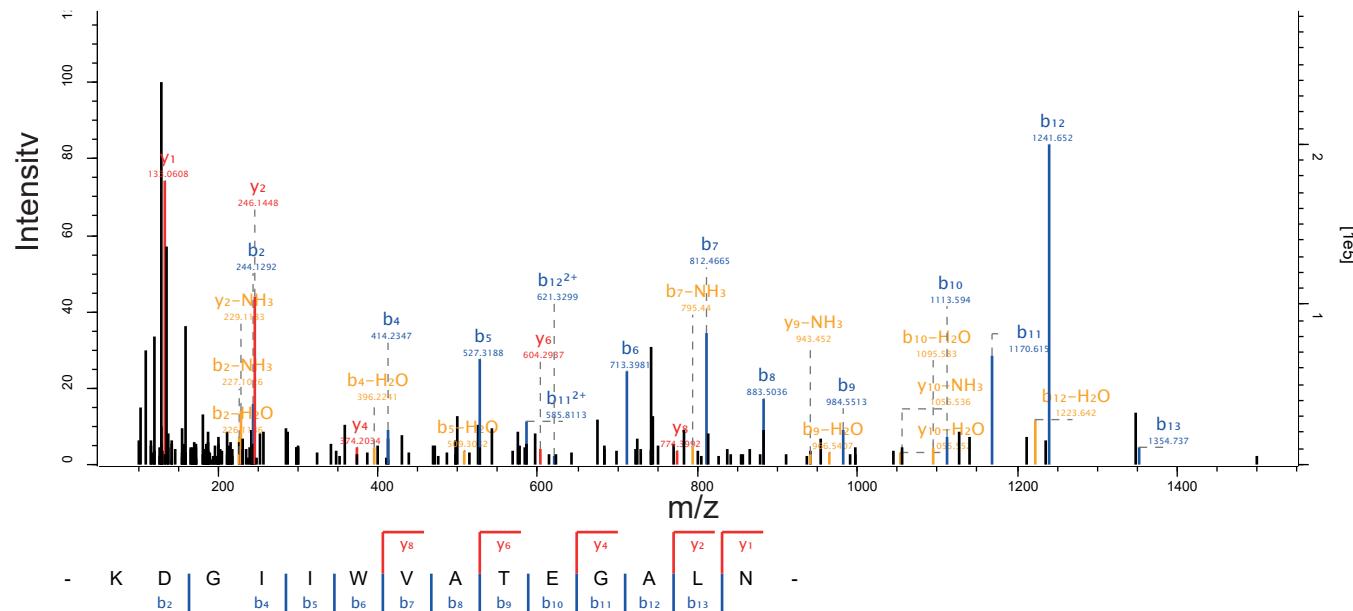


## Endogenous/Synthetic peptide correlation

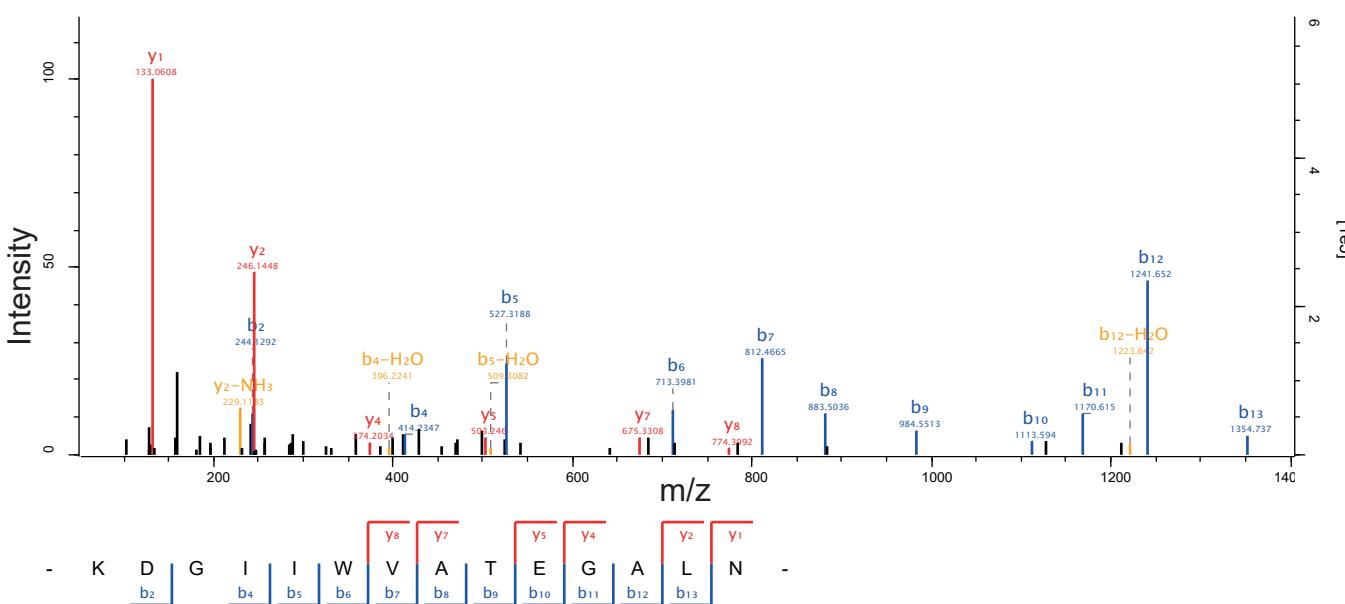


# B cell line IHW01070 with OE of Nucleocapsid HLA-II KDGIIWVATEGALN

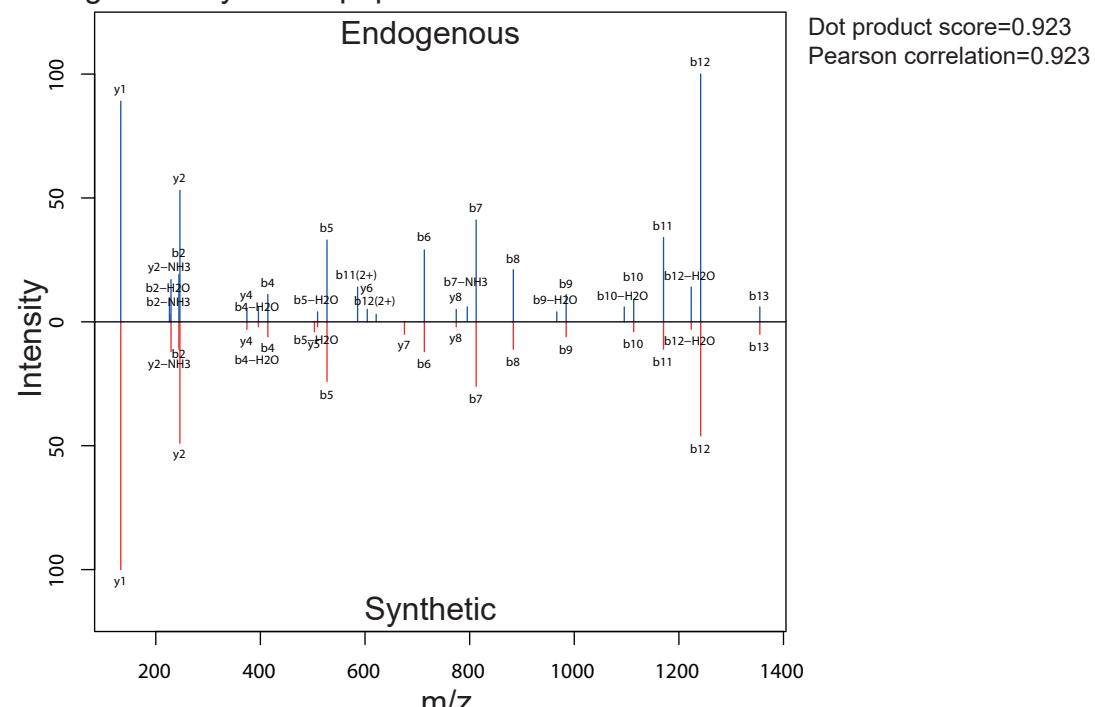
## Endogenous peptide



## Synthetic peptide

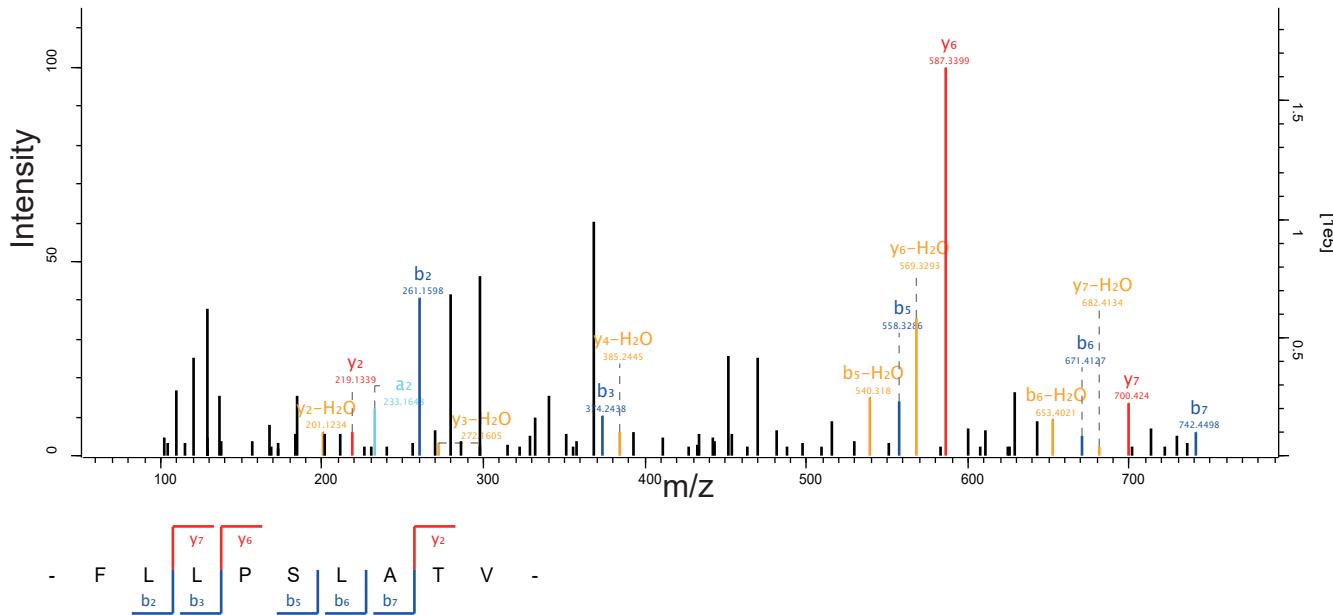


## Endogenous/Synthetic peptide correlation

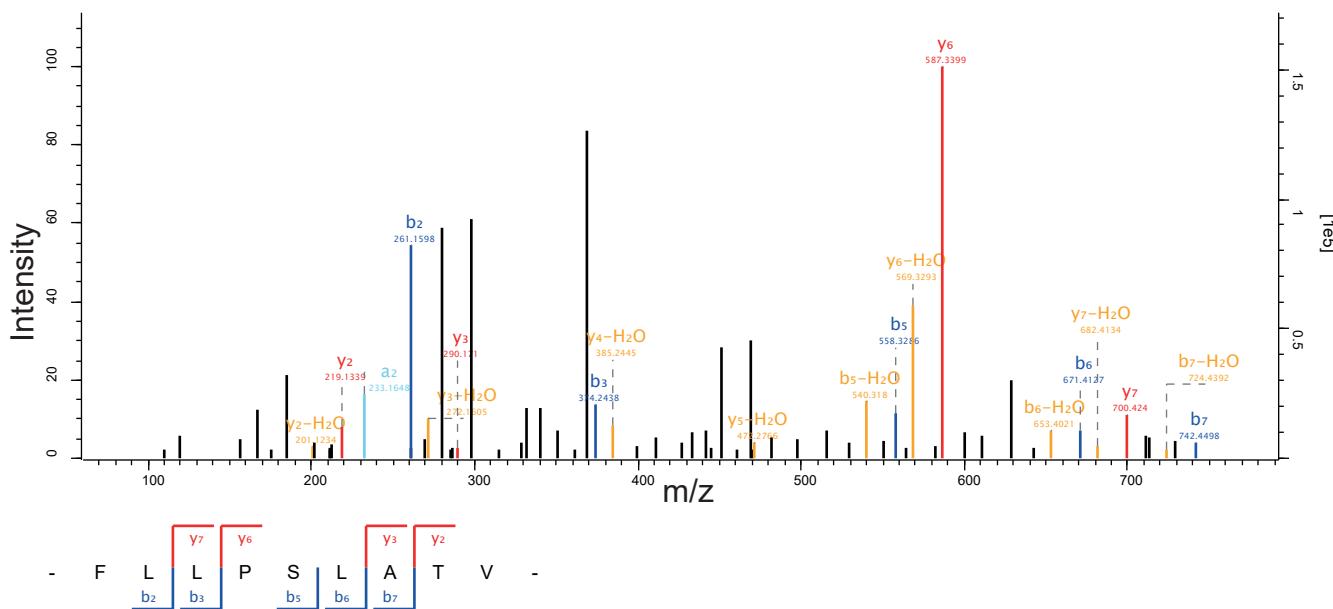


# B cell line IHW01070 with OE of nsp6 HLA-I FLLPSLATV

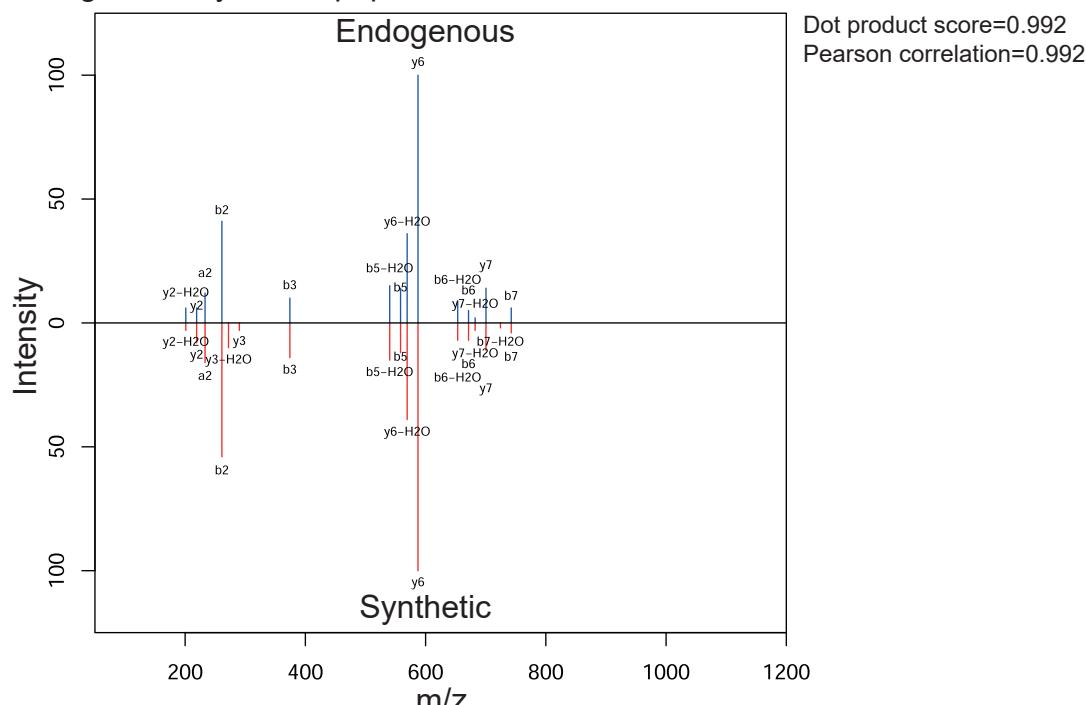
## Endogenous peptide



## Synthetic peptide

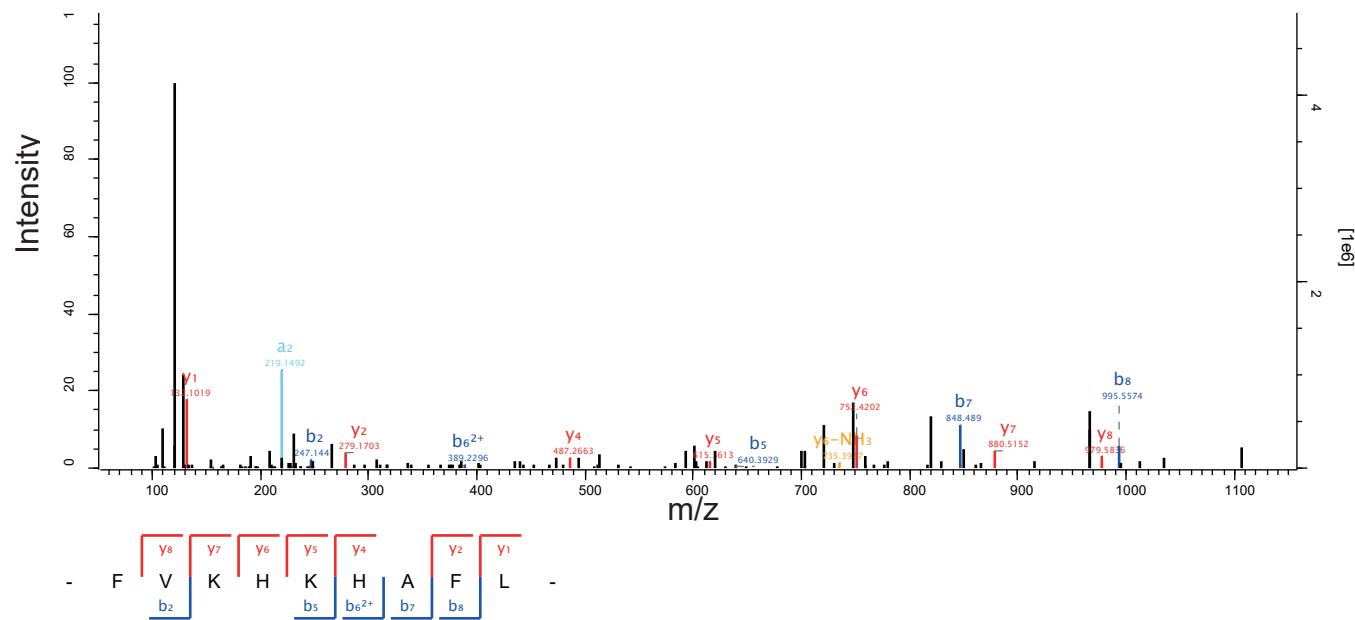


## Endogenous/Synthetic peptide correlation

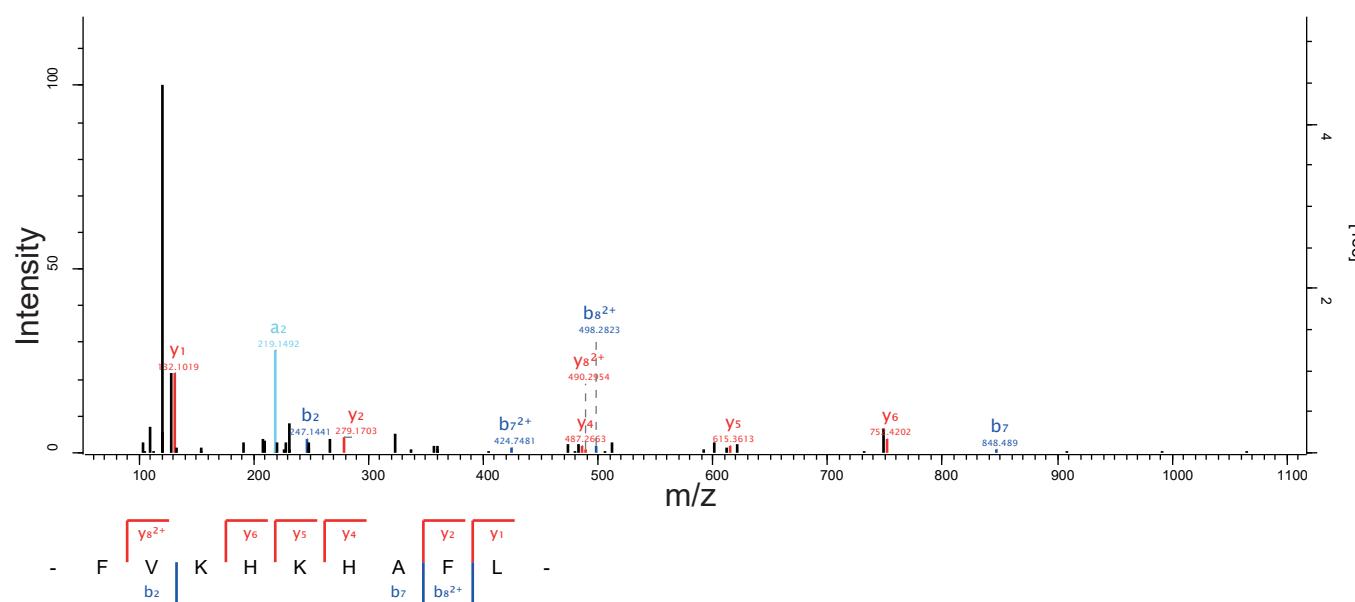


# B cell line IHW01070 with OE of nsp6 HLA-I FVKHKHAFL

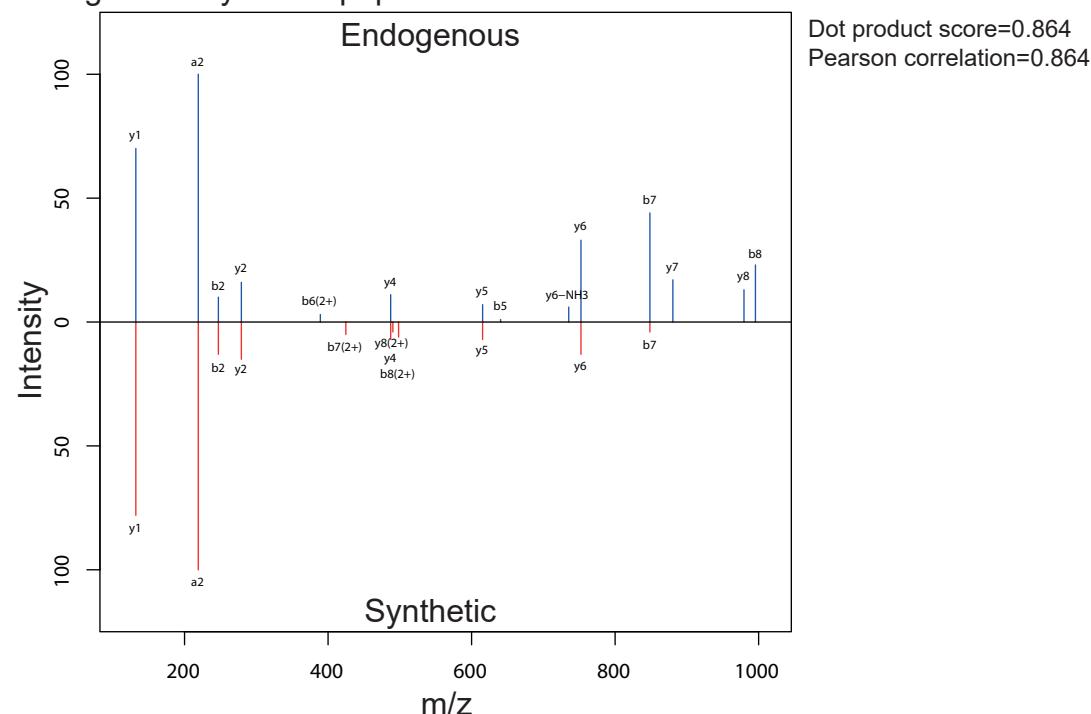
## Endogenous peptide



## Synthetic peptide

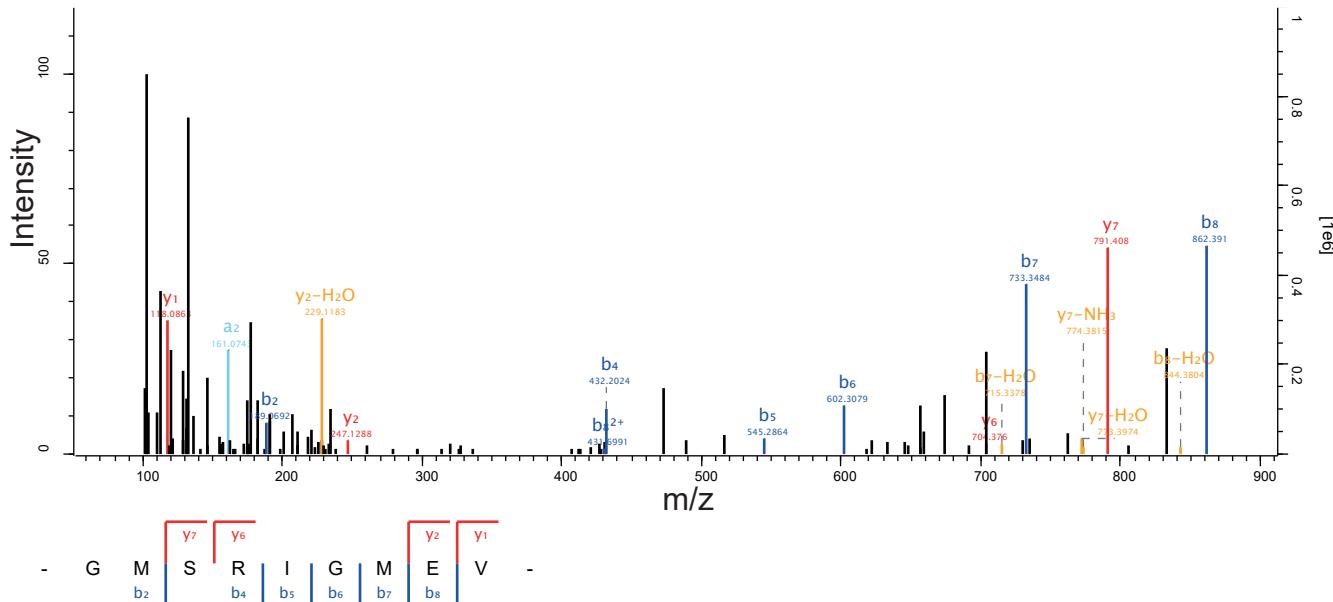


## Endogenous/Synthetic peptide correlation

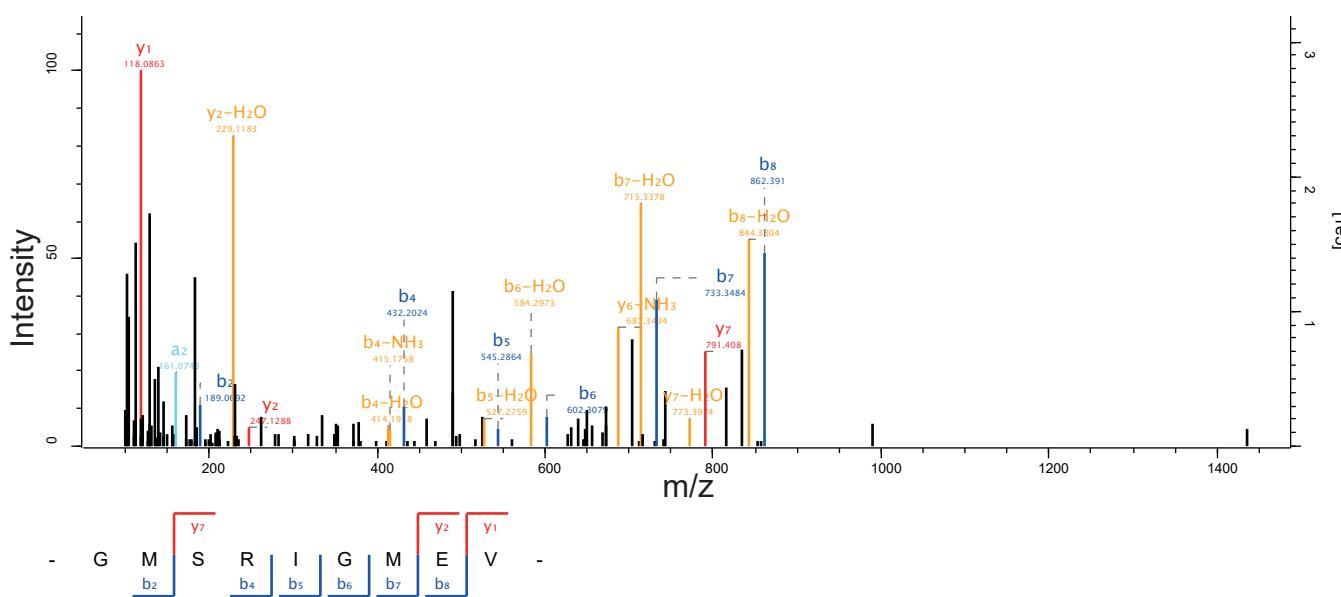


# B cell line IHW01161 with OE of Nucleocapsid HLA-I GMSRIGMEV

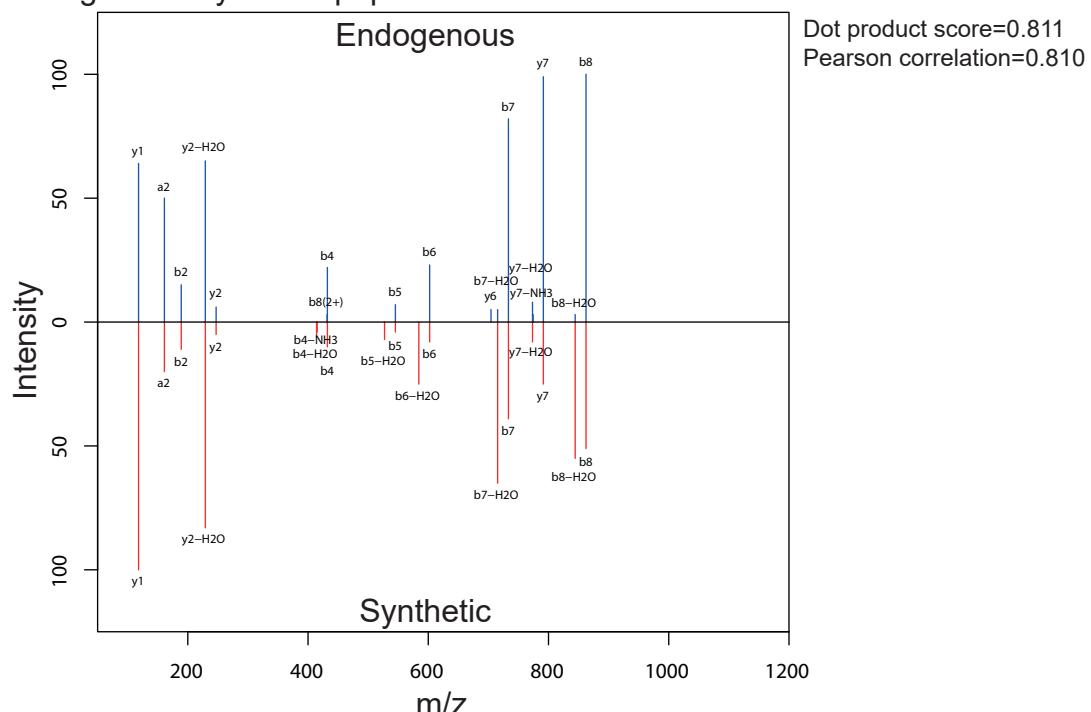
## Endogenous peptide



## Synthetic peptide

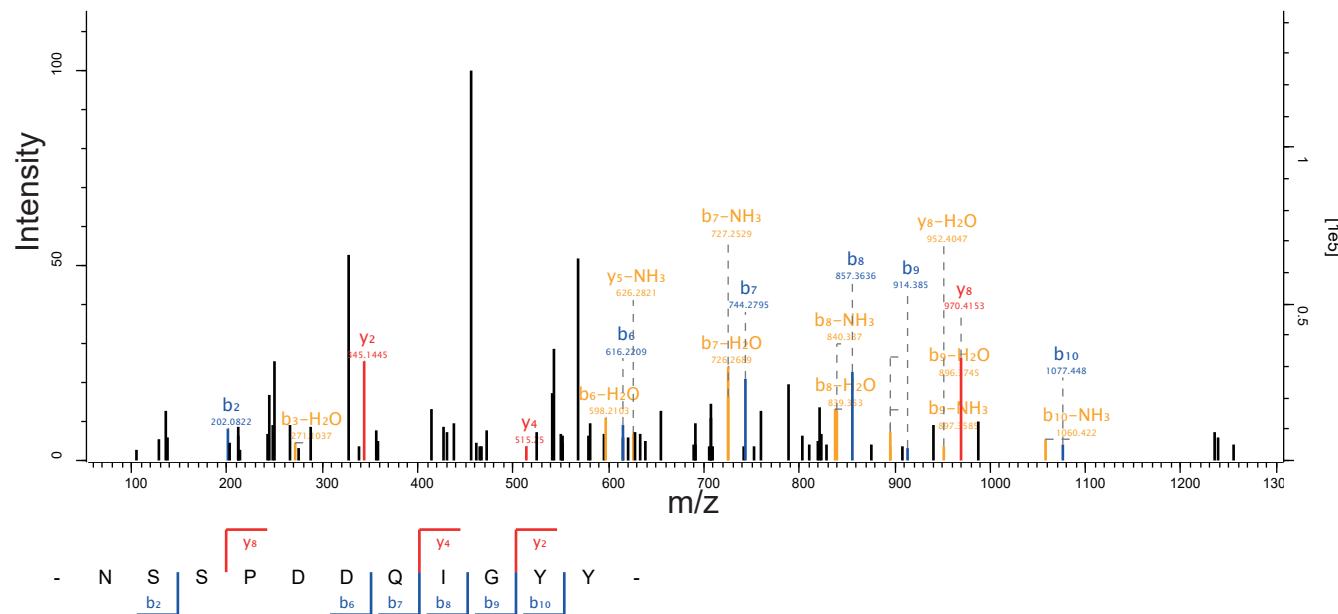


## Endogenous/Synthetic peptide correlation

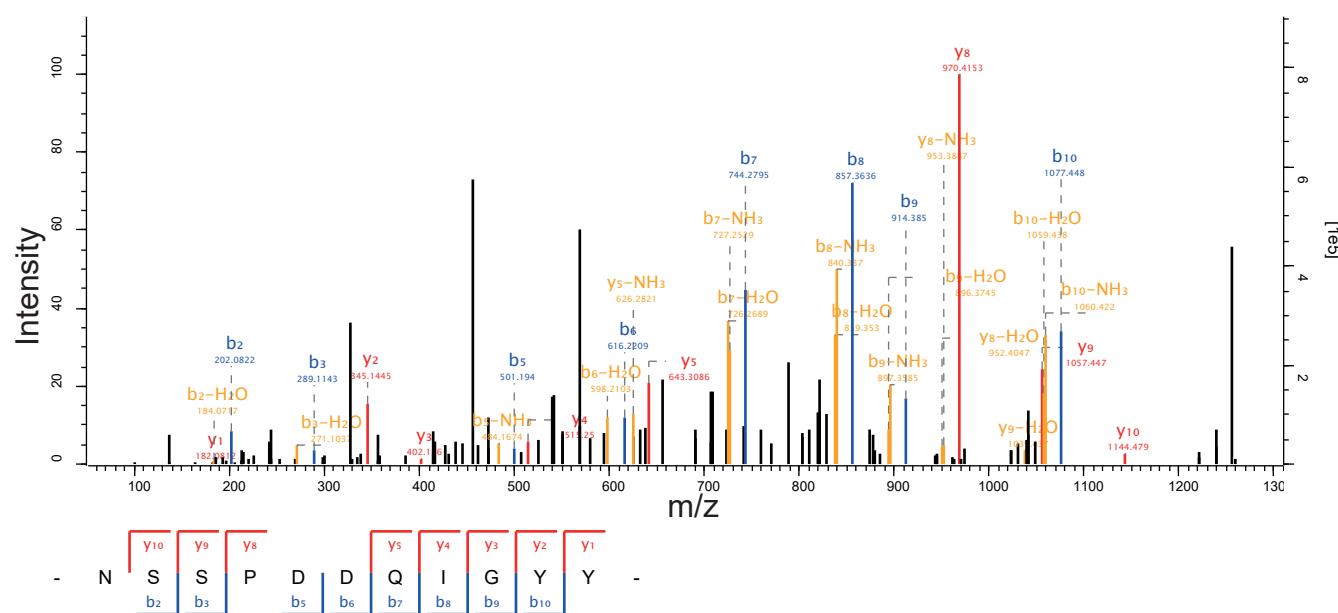


# B cell line IHW01161 with OE of Nucleocapsid HLA-I NSSPDDQIGYY

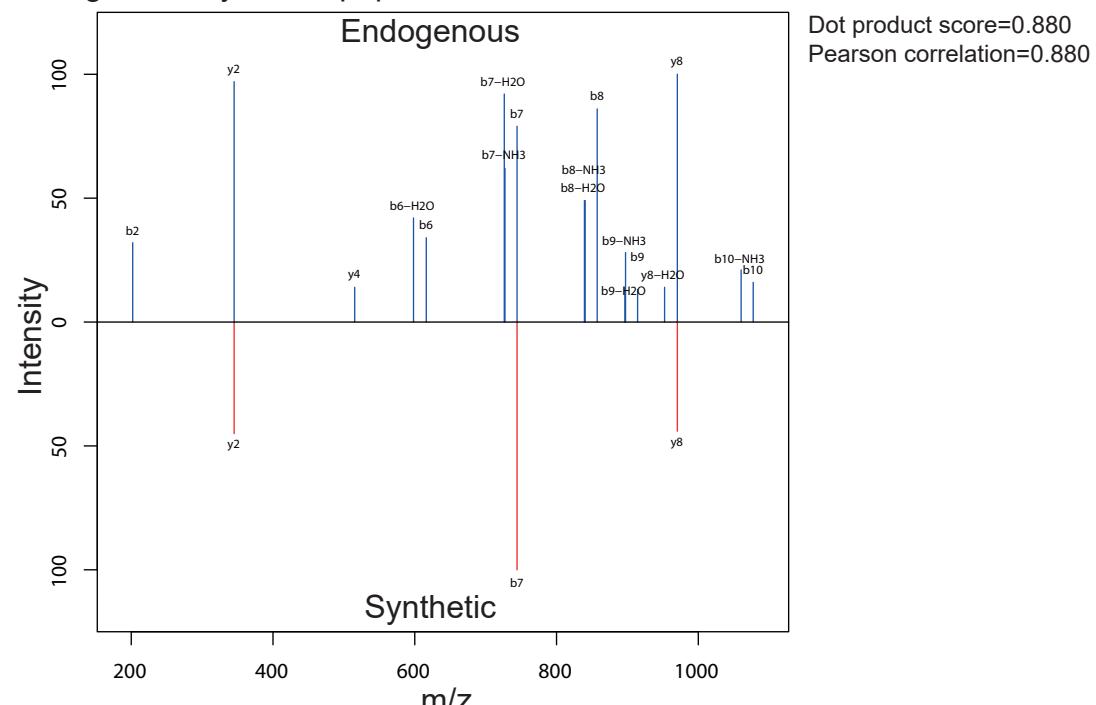
## Endogenous peptide



## Synthetic peptide

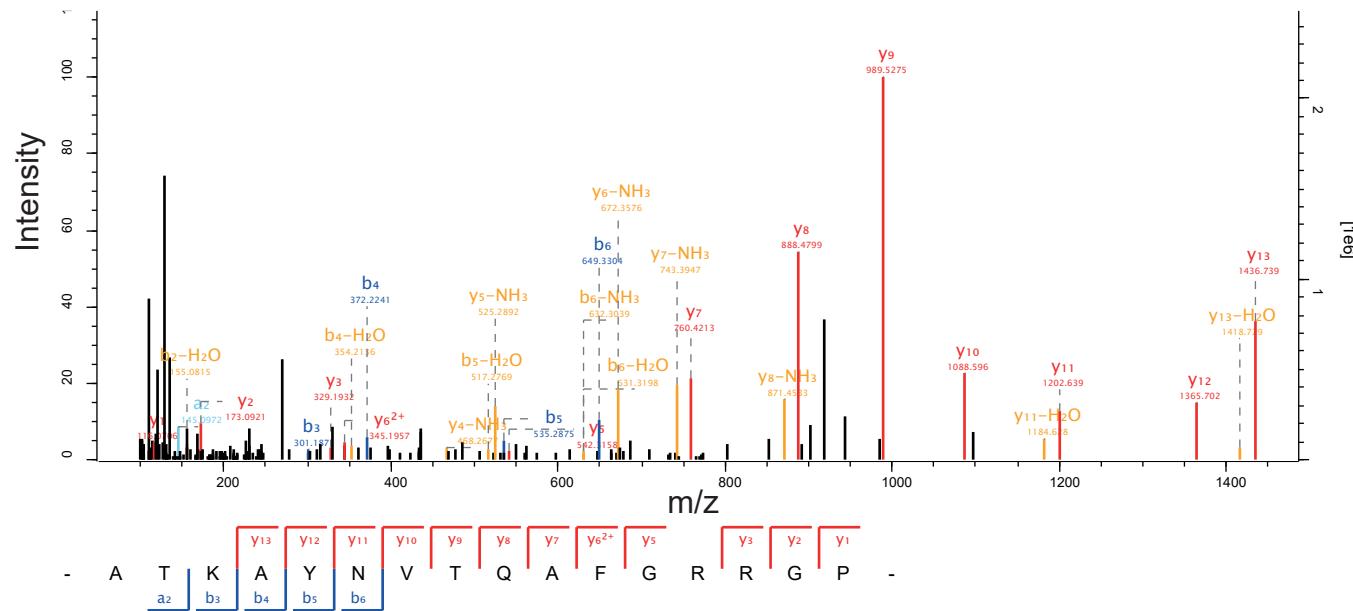


## Endogenous/Synthetic peptide correlation

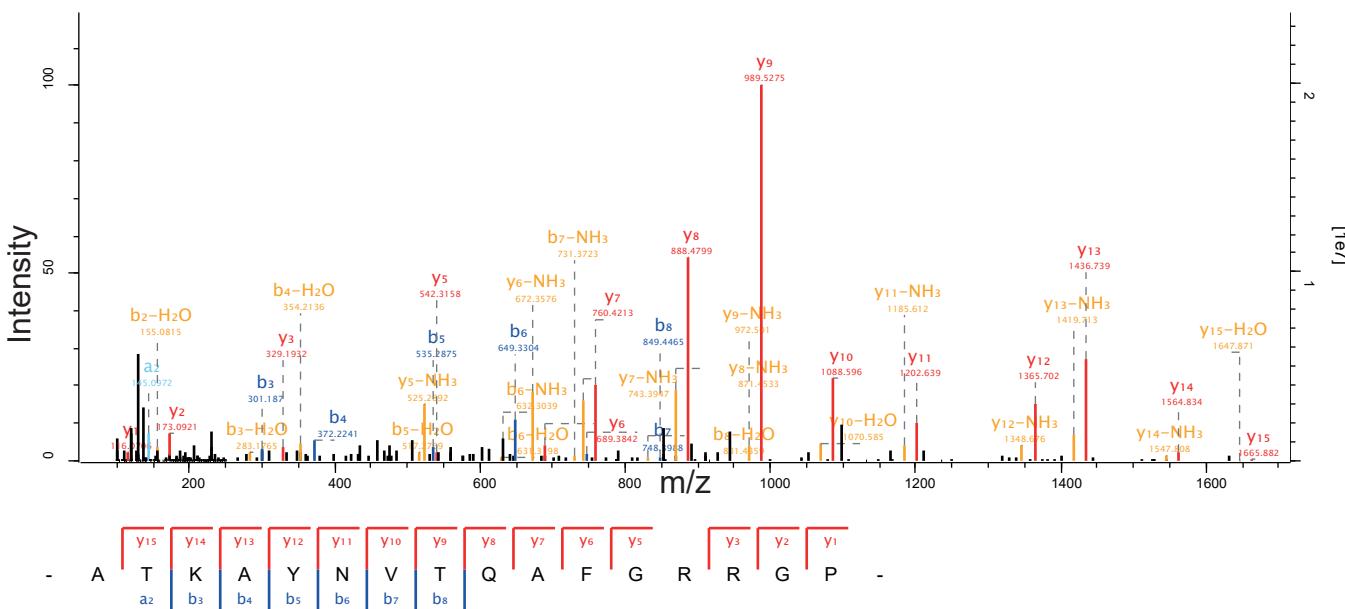


# B cell line IHW01161 with OE of Nucleocapsid HLA-II ATKAYNVTQAFGRRGP

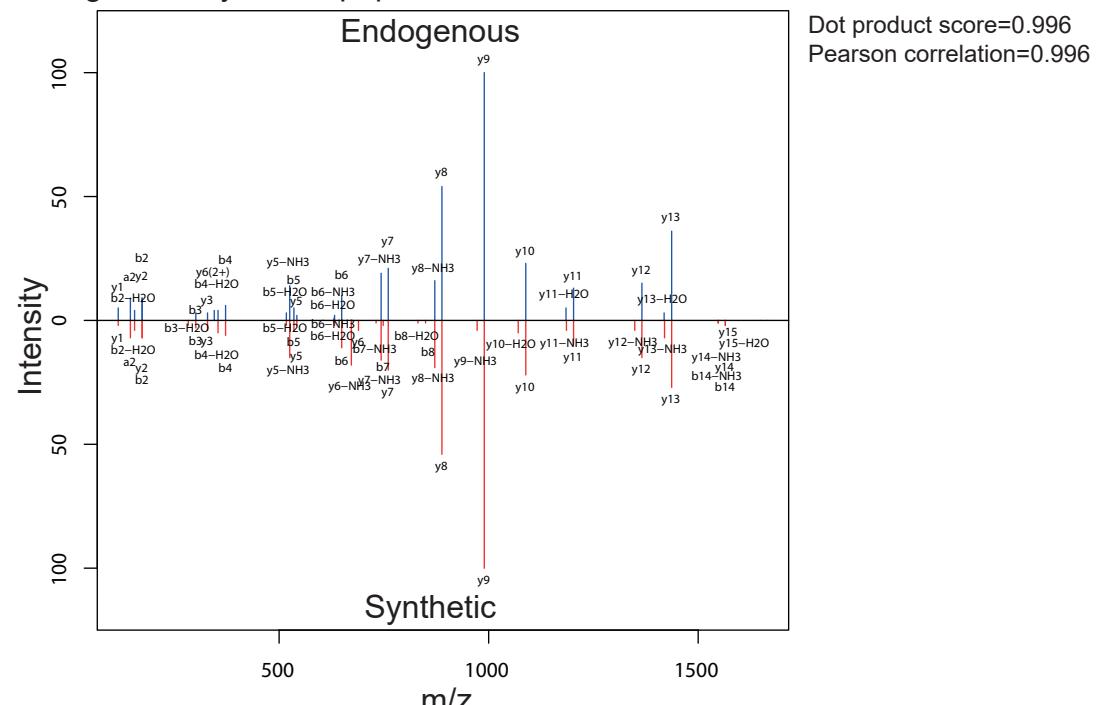
## Endogenous peptide



## Synthetic peptide

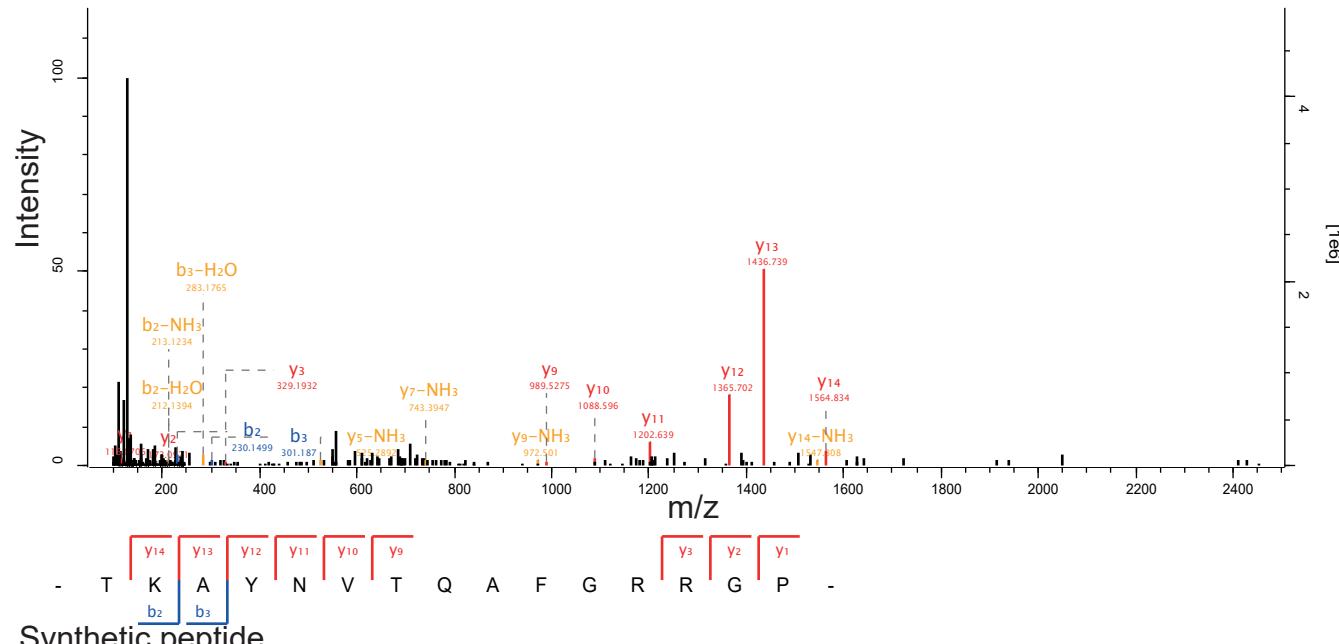


## Endogenous/Synthetic peptide correlation

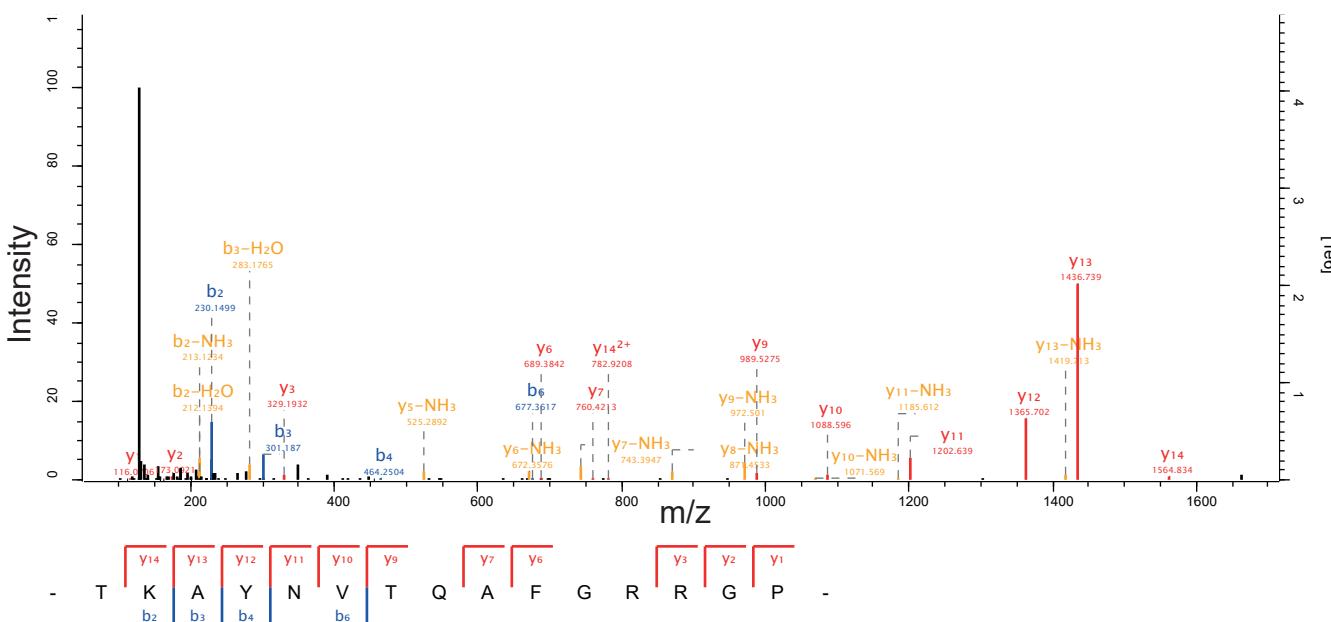


# B cell line IHW01161 with OE of Nucleocapsid HLA-II TKAYNVTQAFGRRGP

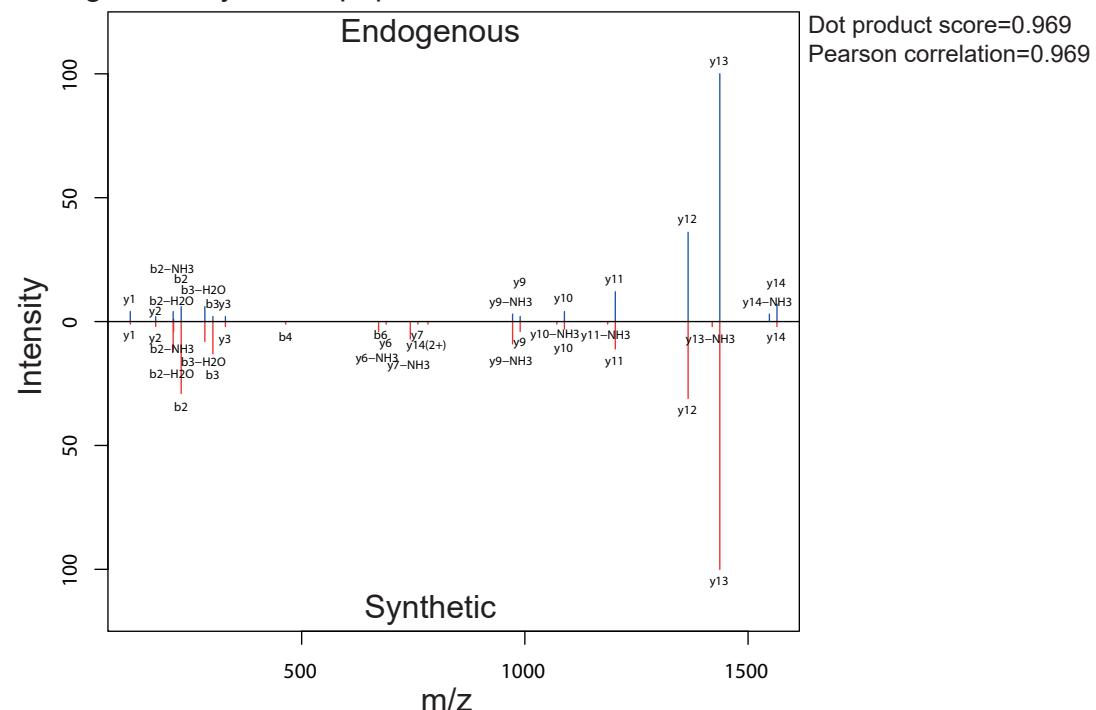
## Endogenous peptide



## Synthetic peptide

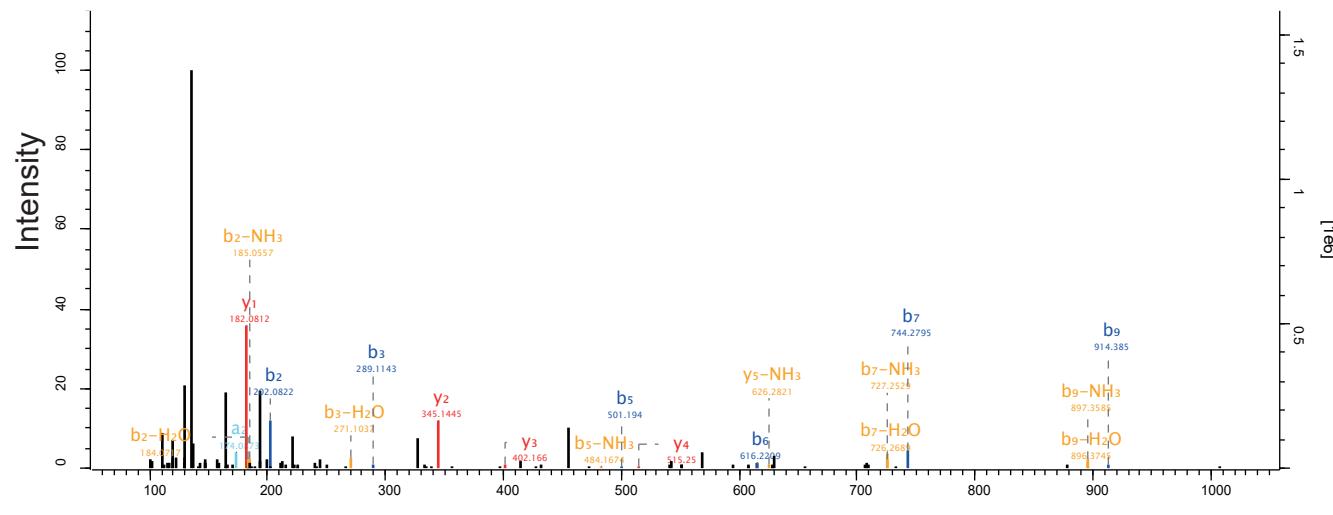


## Endogenous/Synthetic peptide correlation

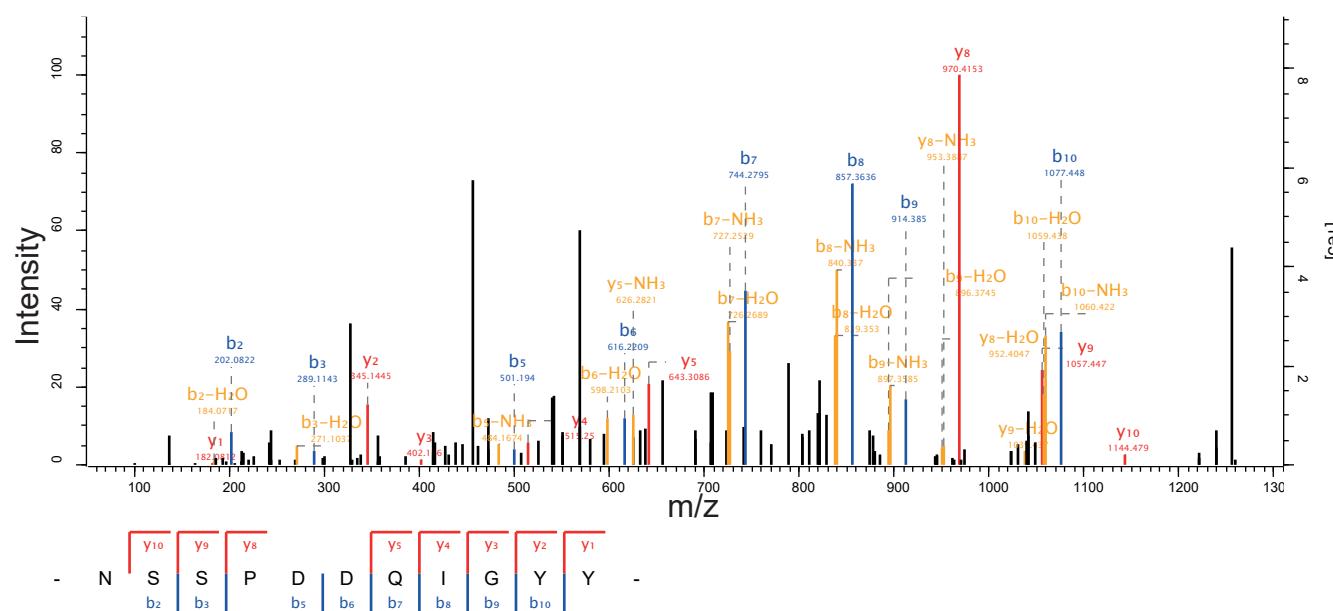


# Calu-6 with OE of Nucleocapsid HLA-I NSSPDDQIGYY

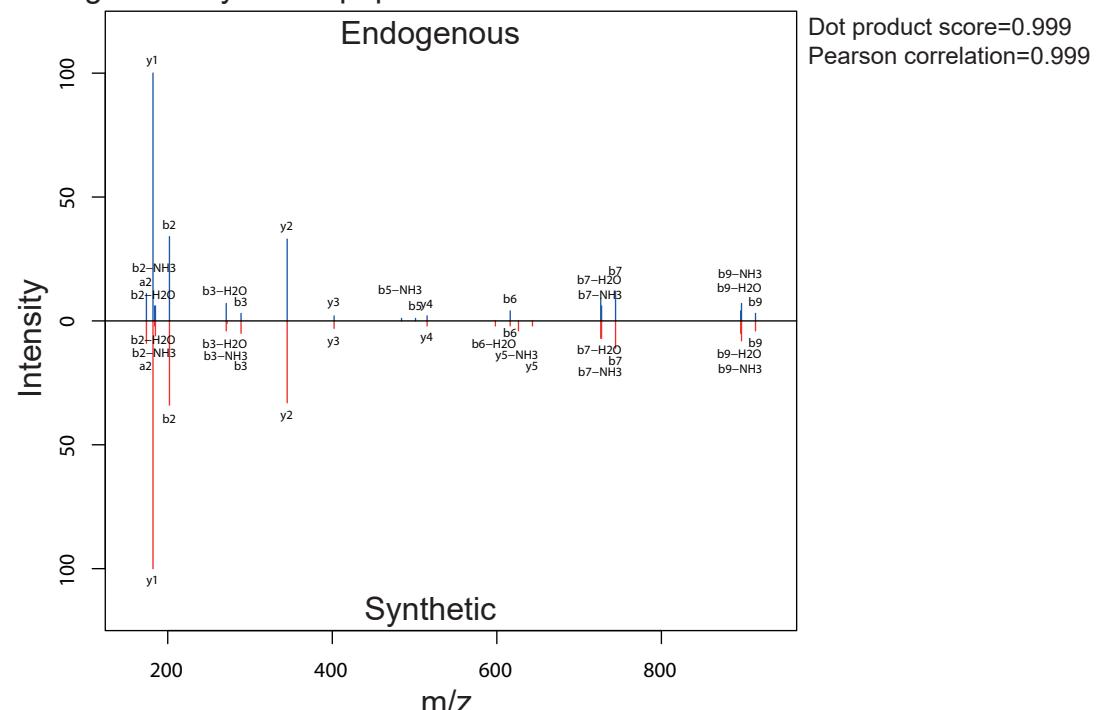
## Endogenous peptide



## Synthetic peptide

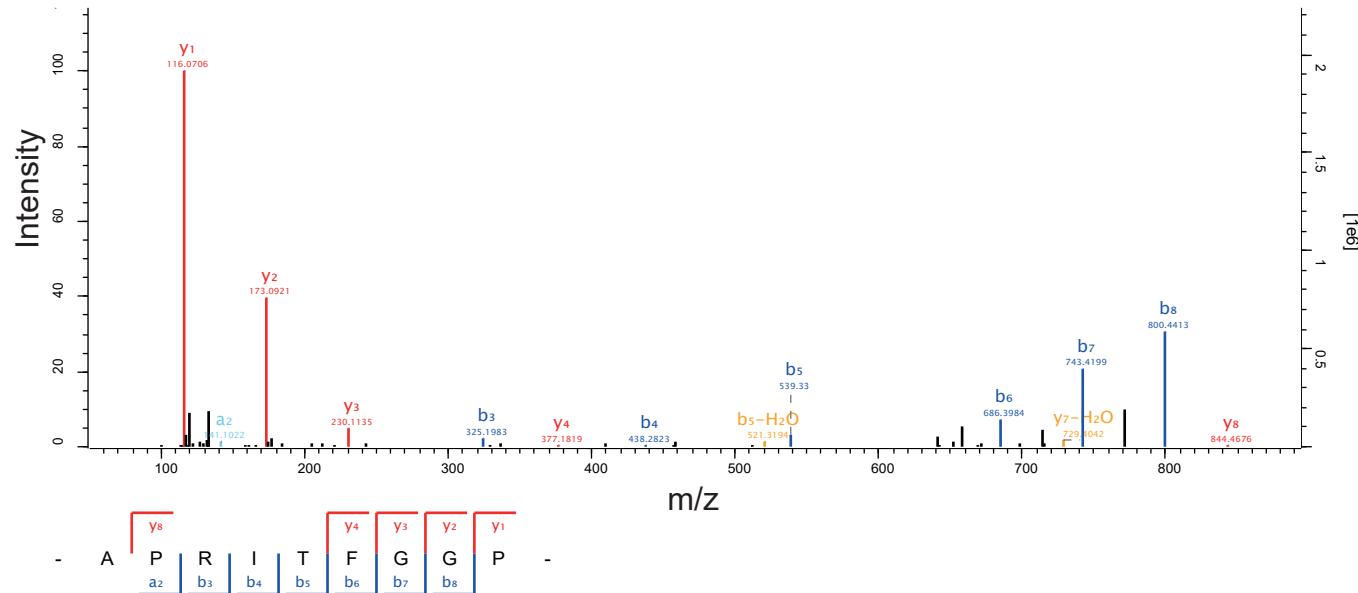


## Endogenous/Synthetic peptide correlation

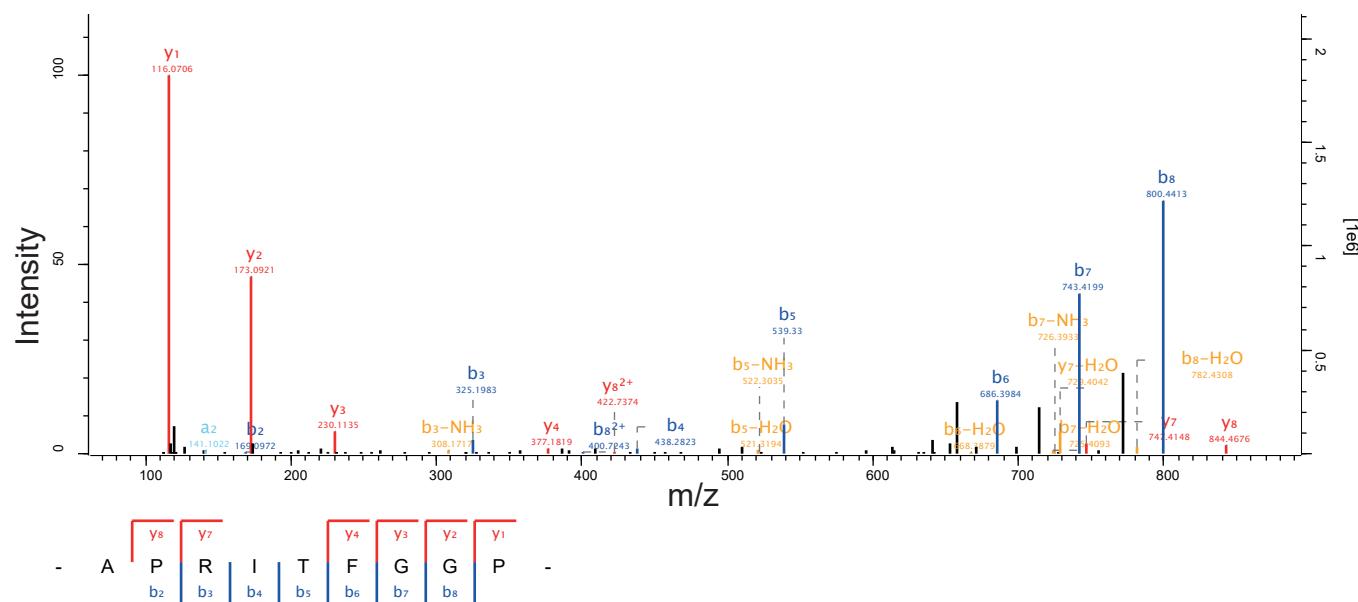


# HEK293T infected with SARS-CoV-2 HLA-I APRITFGGP

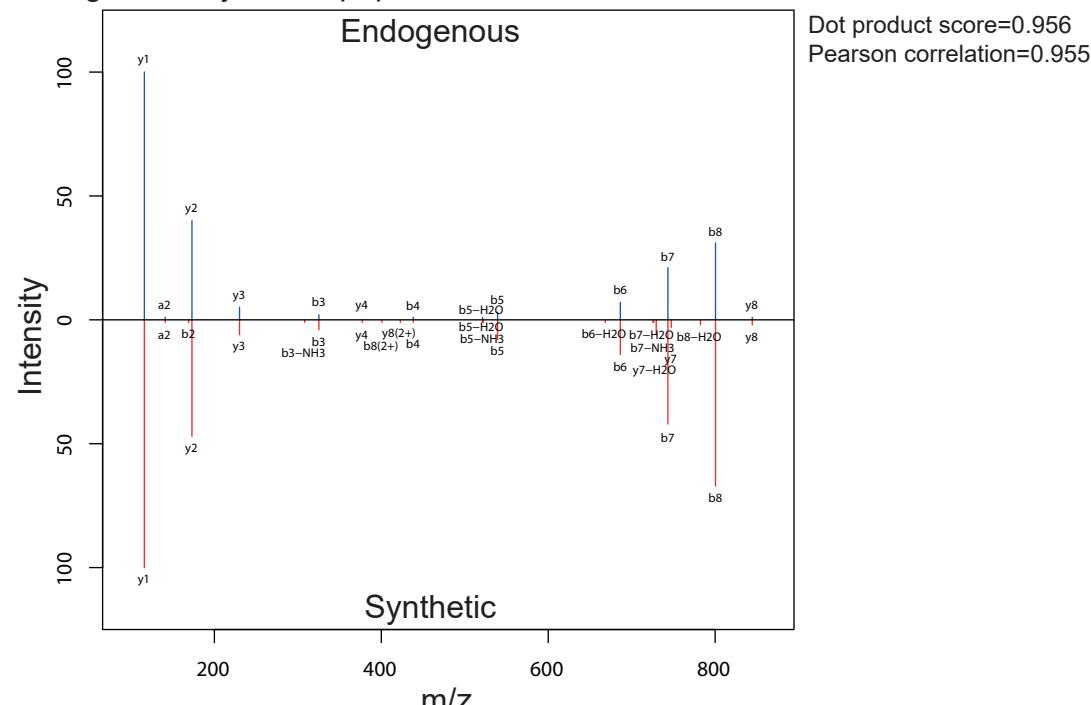
## Endogenous peptide



## Synthetic peptide

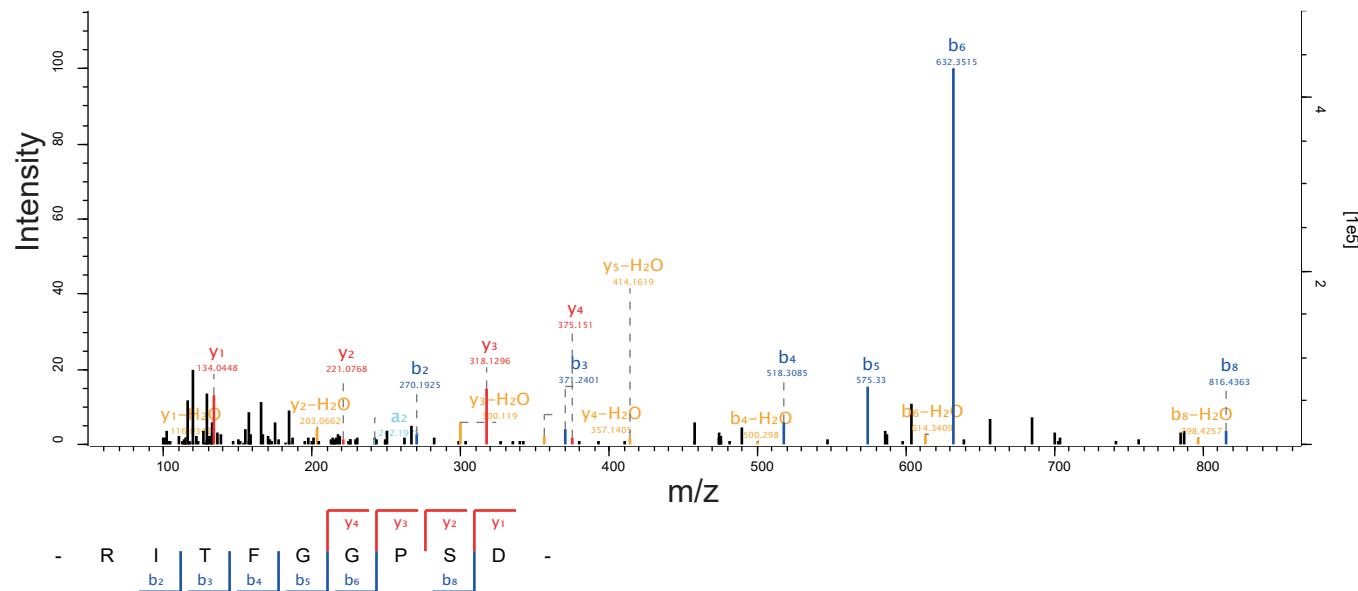


## Endogenous/Synthetic peptide correlation

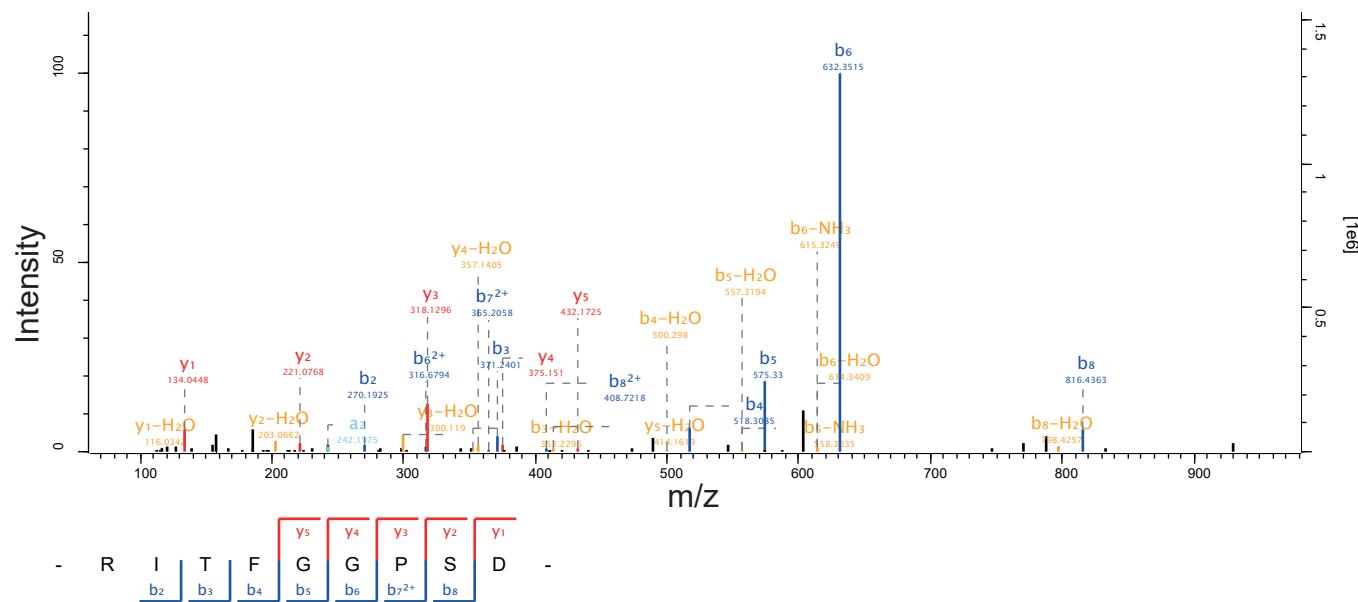


# HEK293T infected with SARS-CoV-2 HLA-I RITFGGPSD

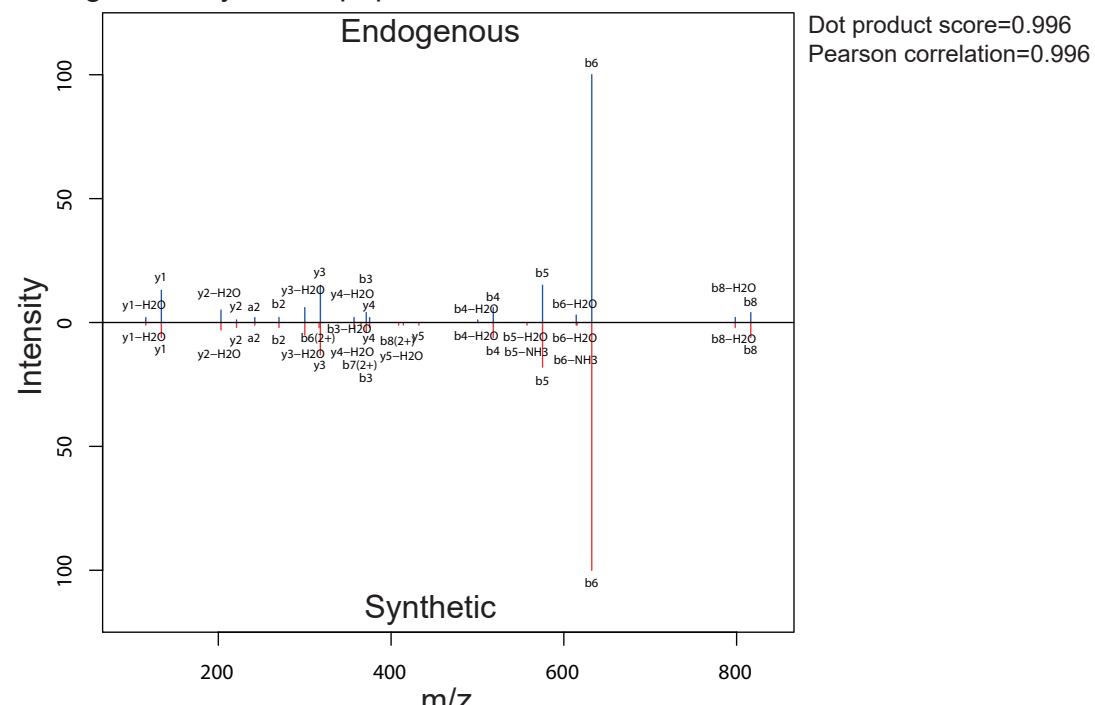
## Endogenous peptide



## Synthetic peptide

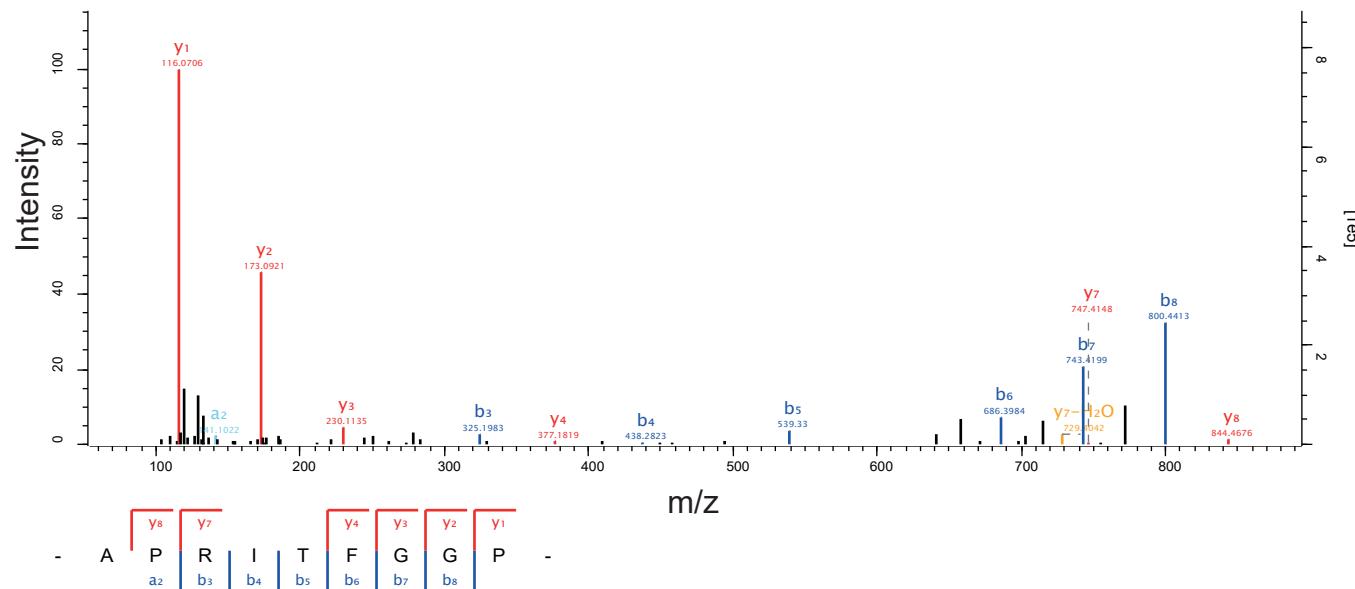


## Endogenous/Synthetic peptide correlation

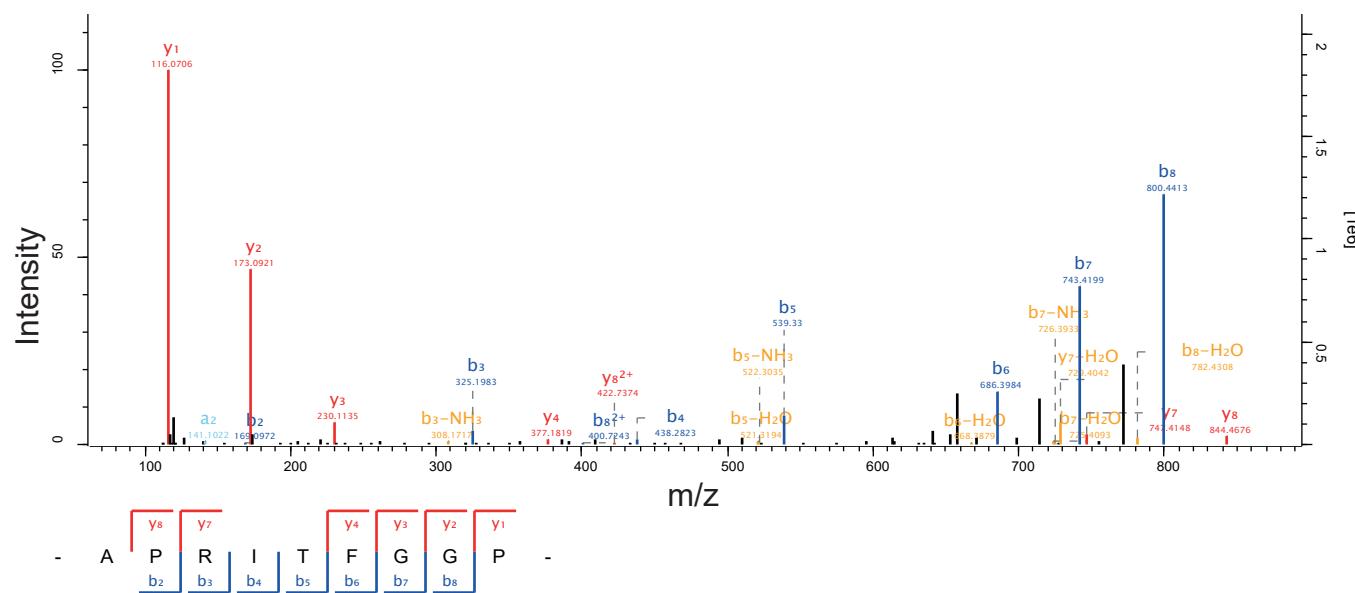


# Calu-3 infected with SARS-CoV-2 HLA-I APRITFGGP

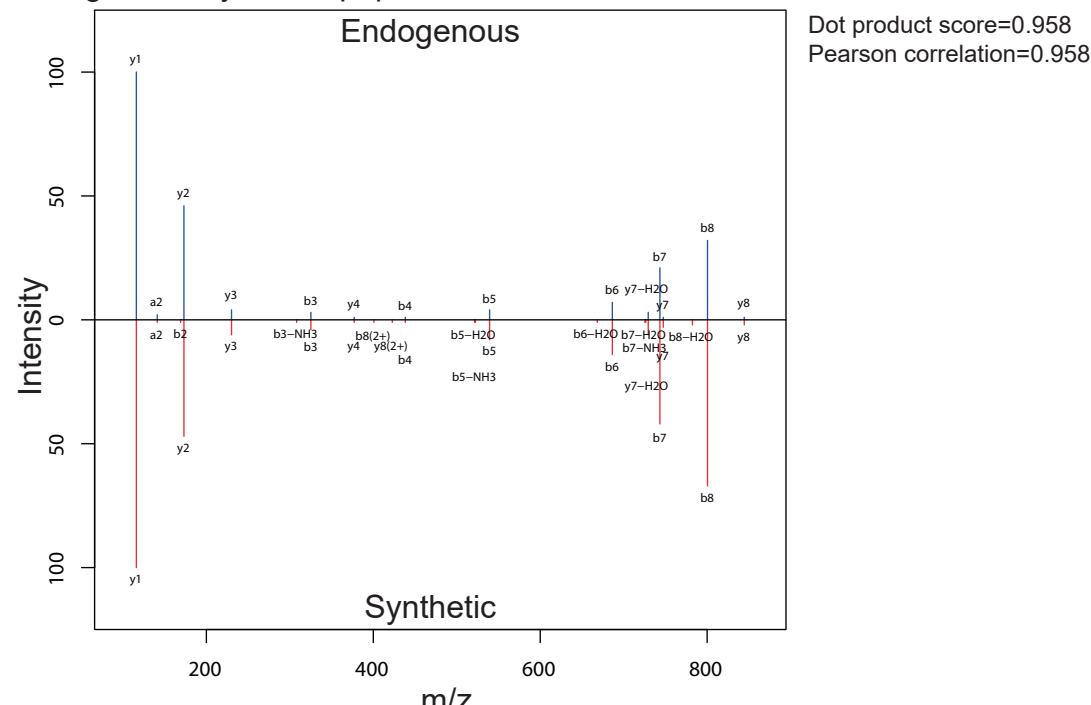
## Endogenous peptide



## Synthetic peptide

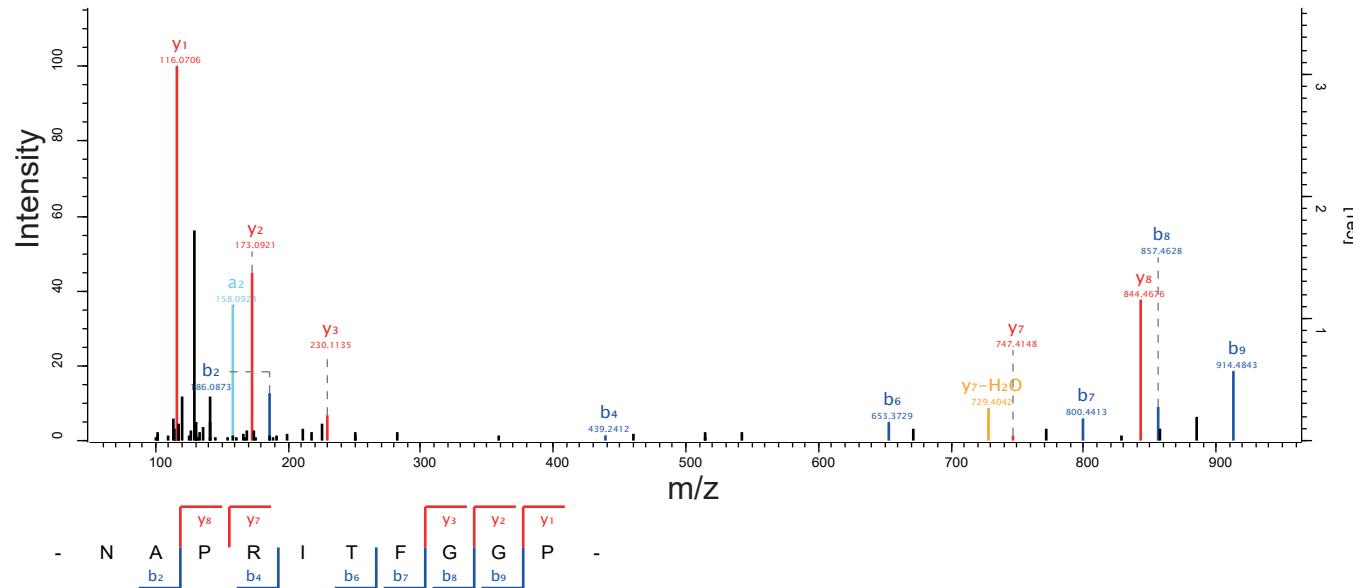


## Endogenous/Synthetic peptide correlation

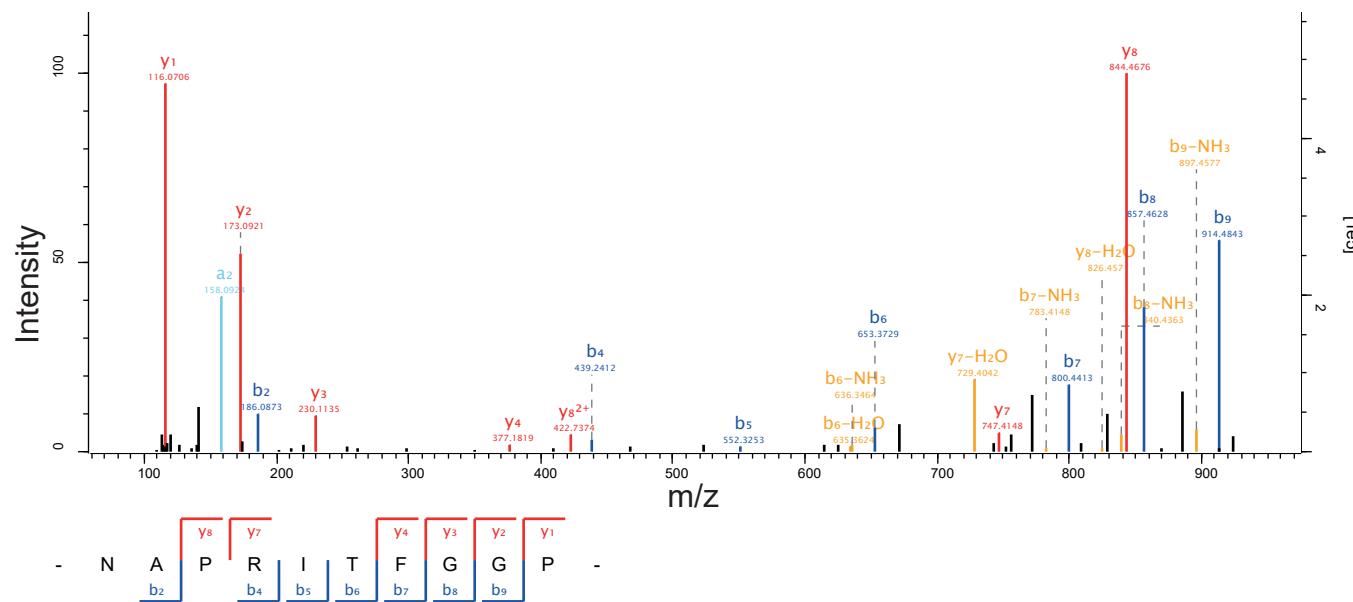


# Calu-3 infected with SARS-CoV-2 HLA-I NAPRITFGGP

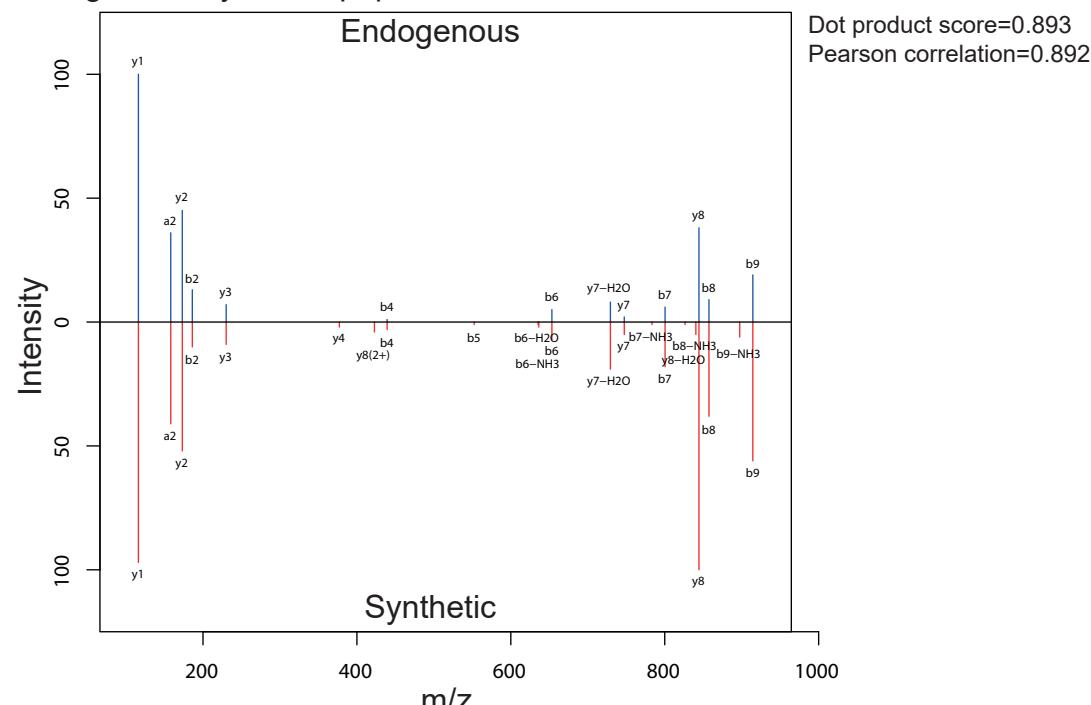
## Endogenous peptide



## Synthetic peptide

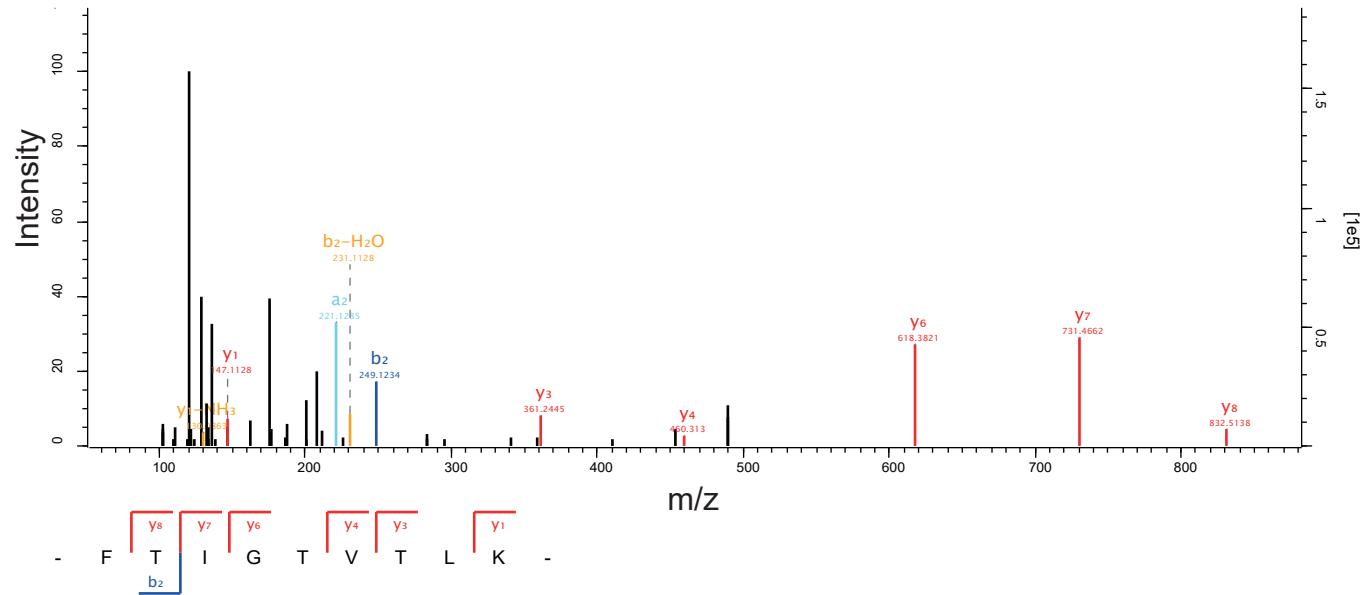


## Endogenous/Synthetic peptide correlation

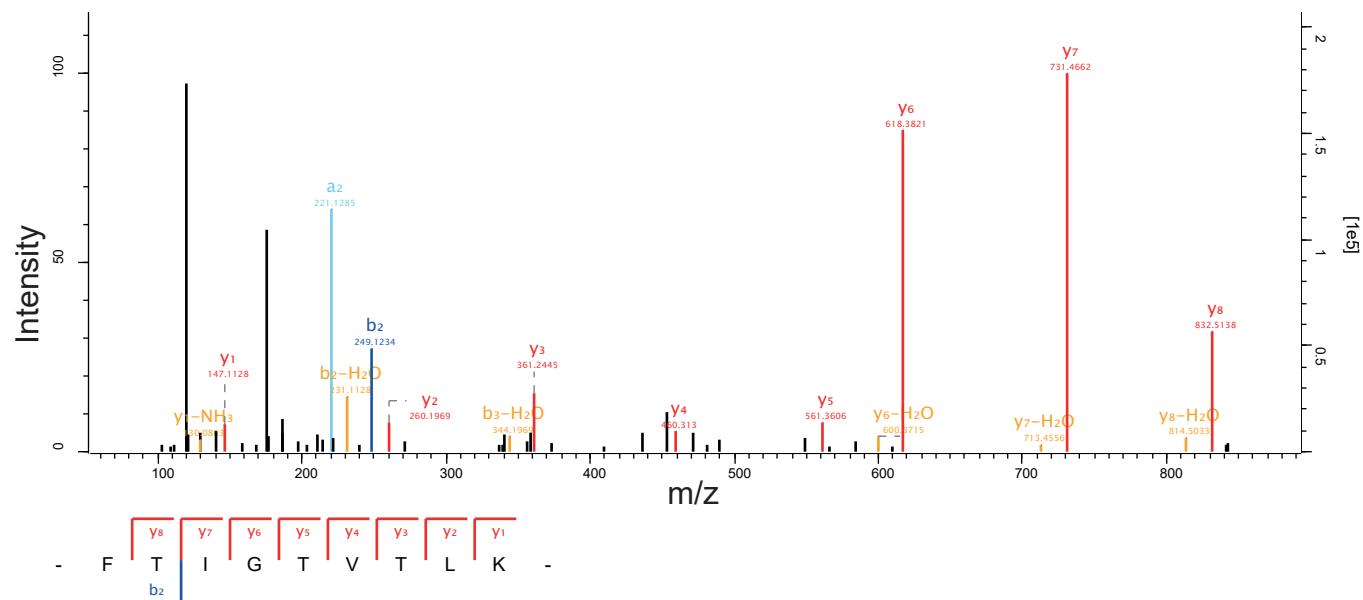


# Calu-3 infected with SARS-CoV-2 HLA-I FTIGTVTLK

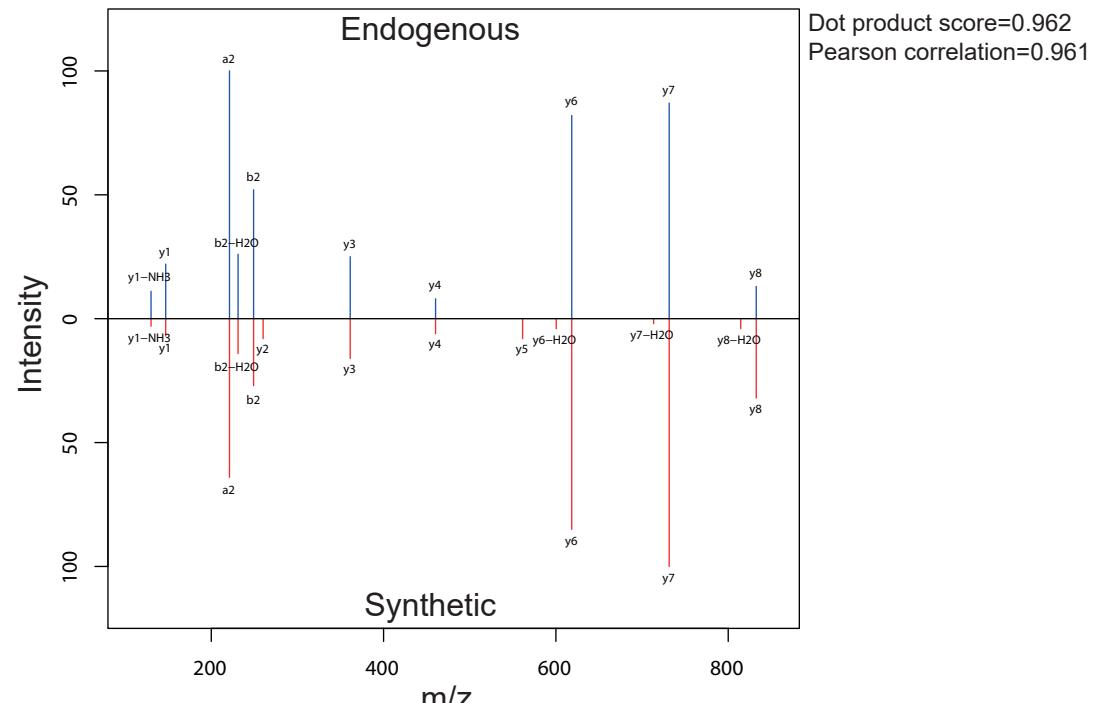
## Endogenous peptide



## Synthetic peptide

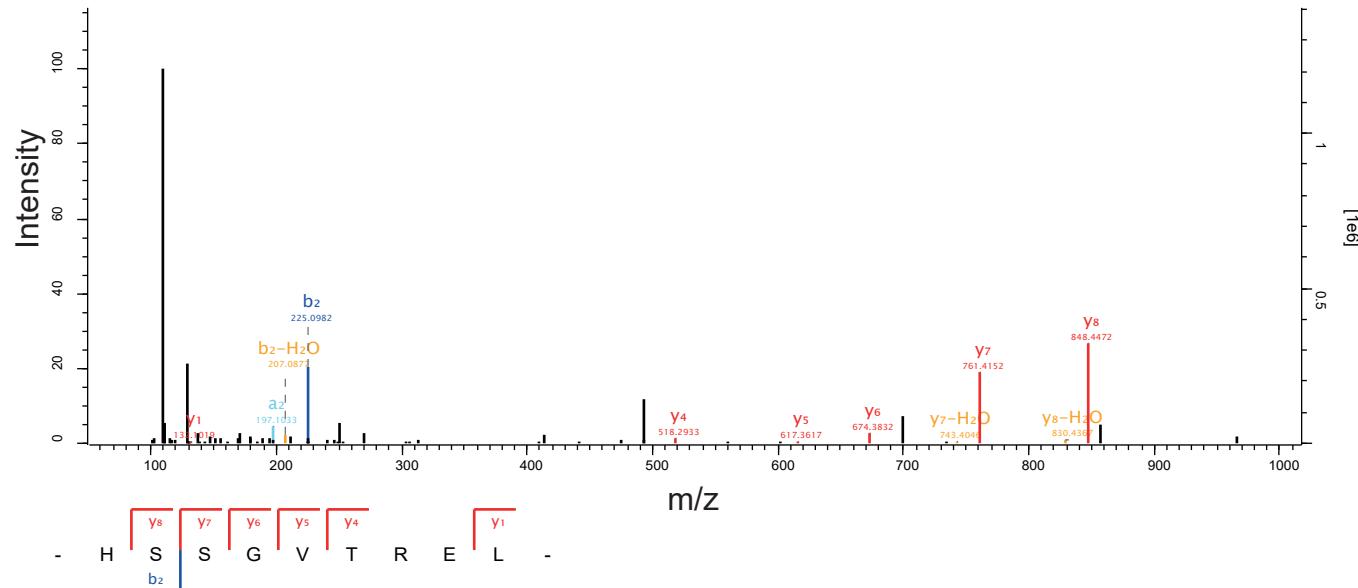


## Endogenous/Synthetic peptide correlation

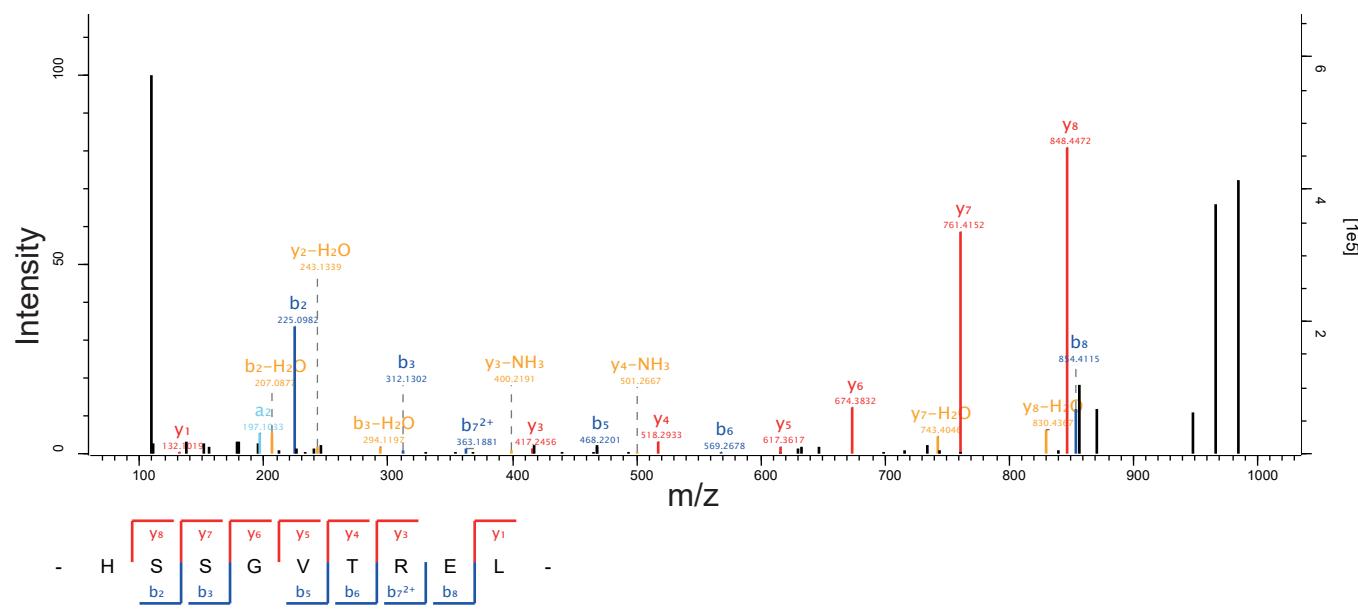


# Calu-3 infected with SARS-CoV-2 HLA-I HSSGVTREL

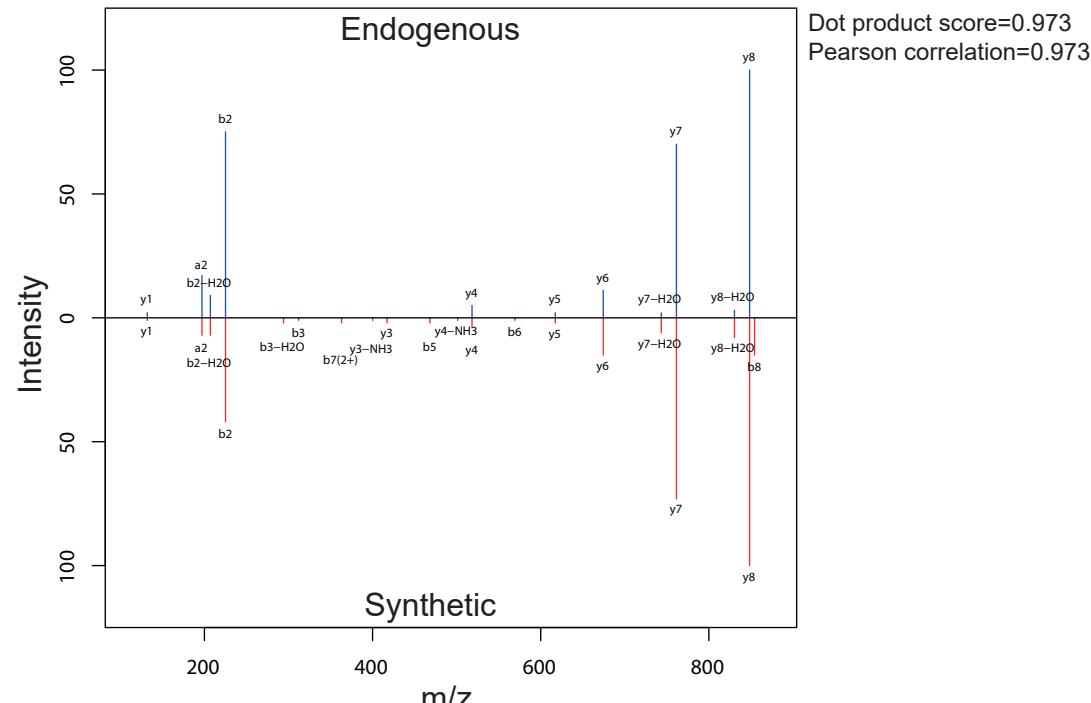
## Endogenous peptide



## Synthetic peptide

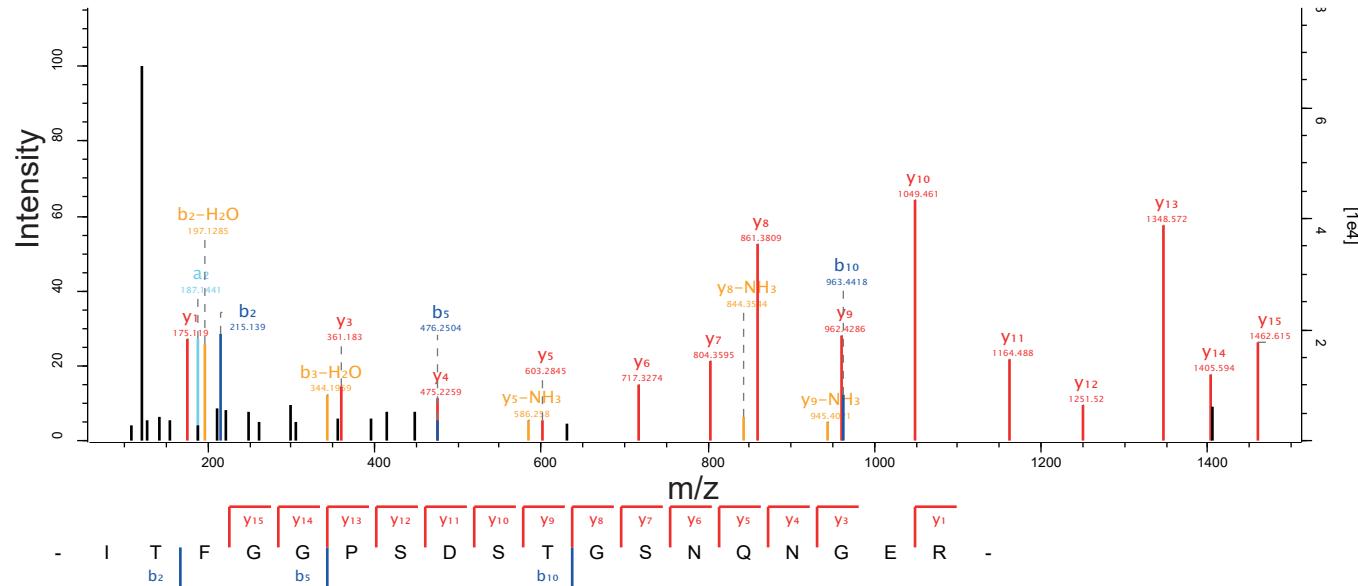


## Endogenous/Synthetic peptide correlation

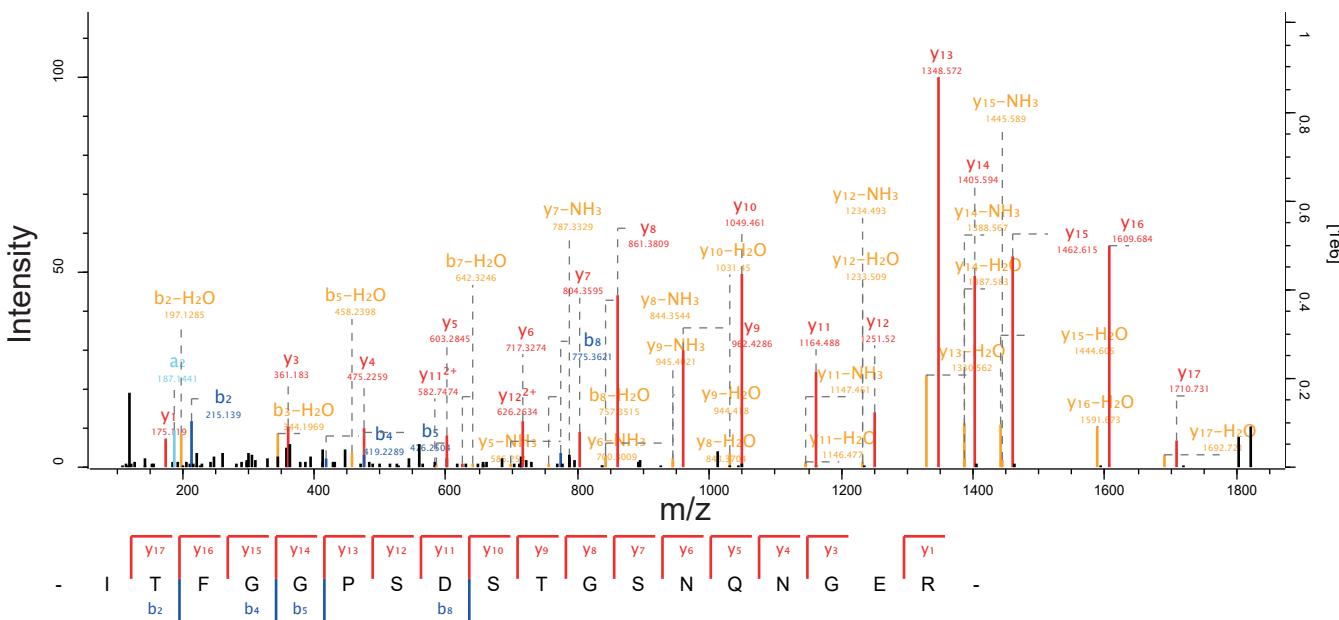


# Calu-3 infected with SARS-CoV-2 HLA-I ITFGGPDSTGSNQNGER

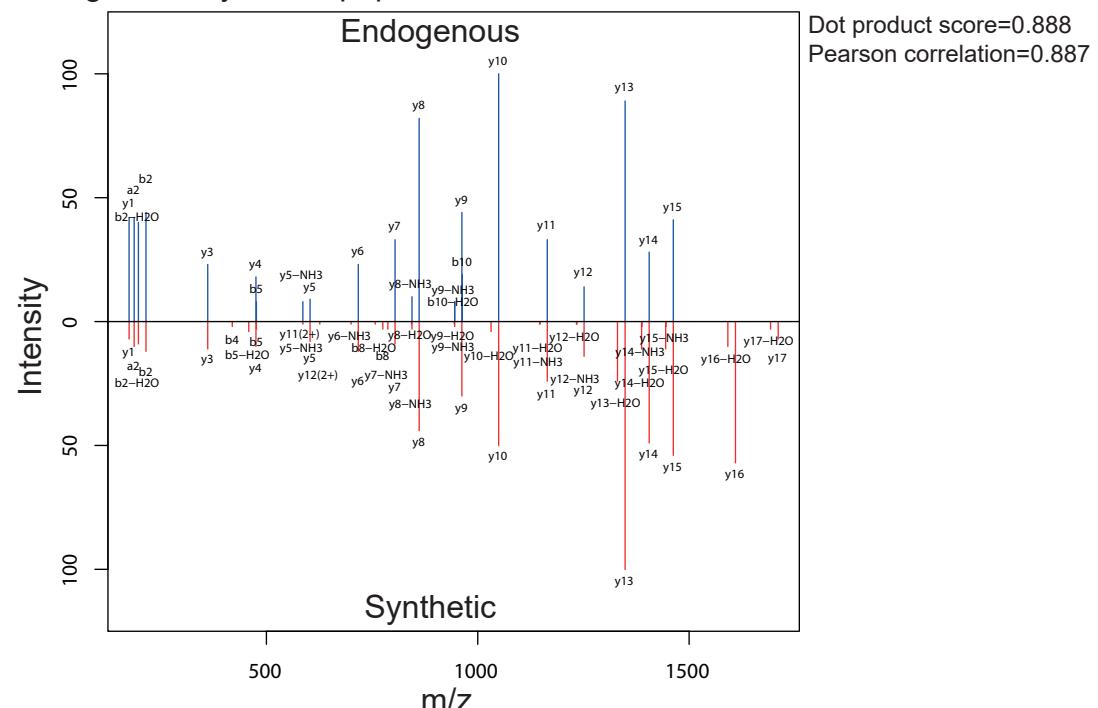
## Endogenous peptide



## Synthetic peptide

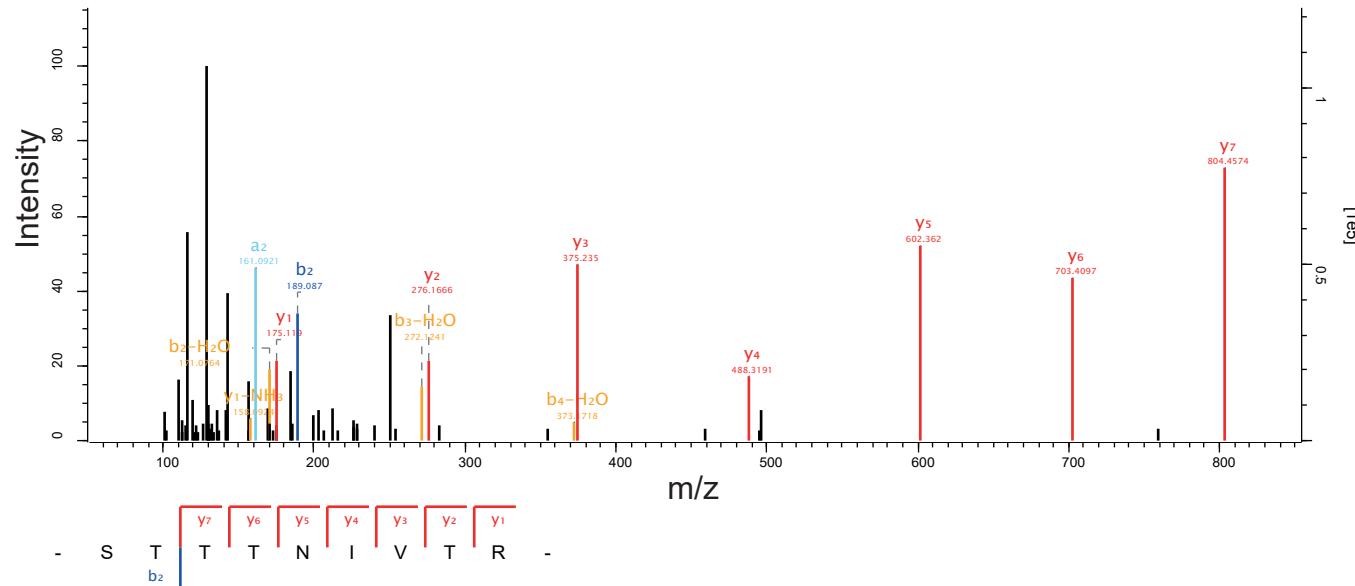


## Endogenous/Synthetic peptide correlation

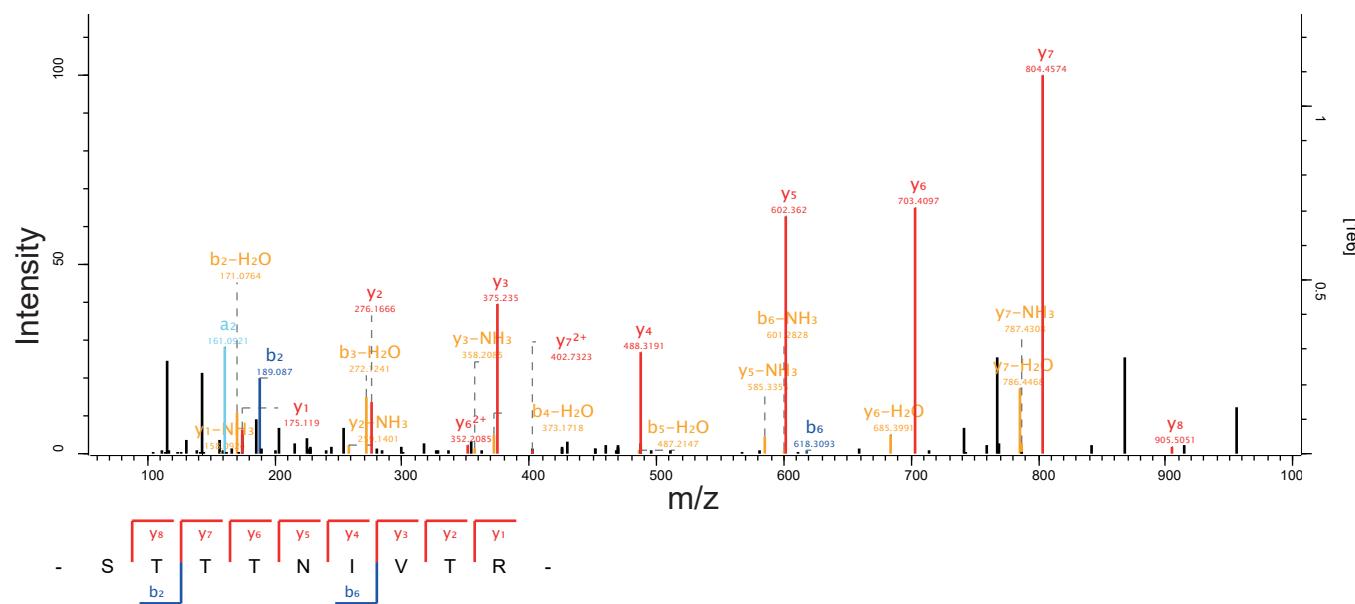


# Calu-3 infected with SARS-CoV-2 HLA-I STTTNIVTR

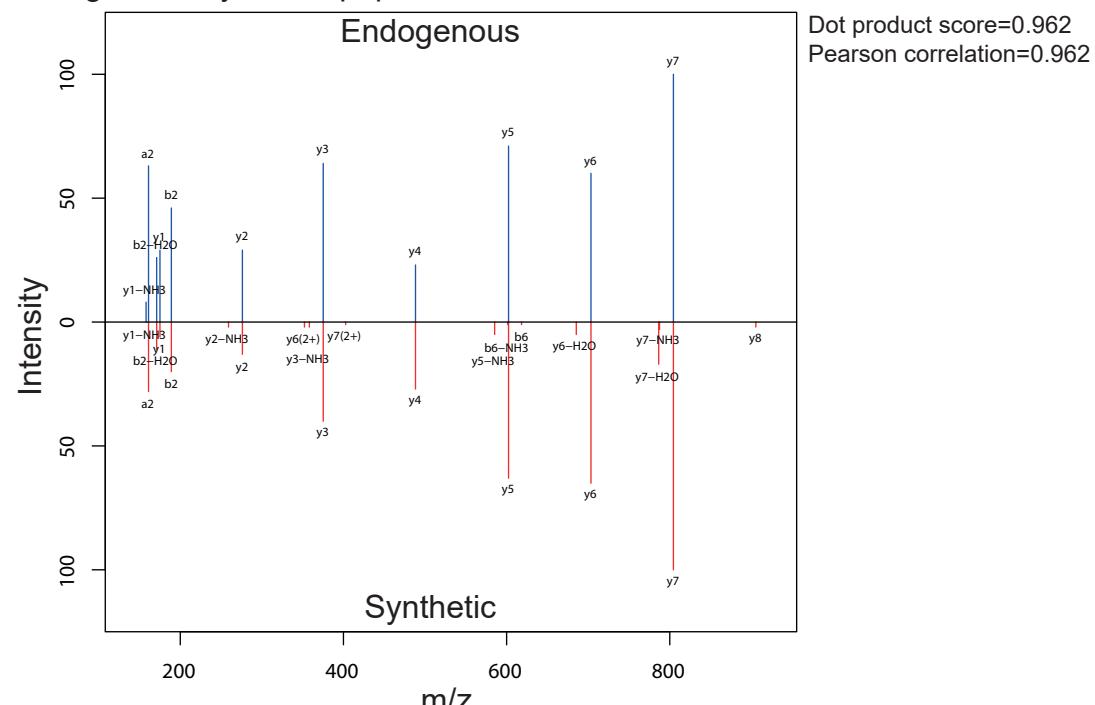
## Endogenous peptide



## Synthetic peptide

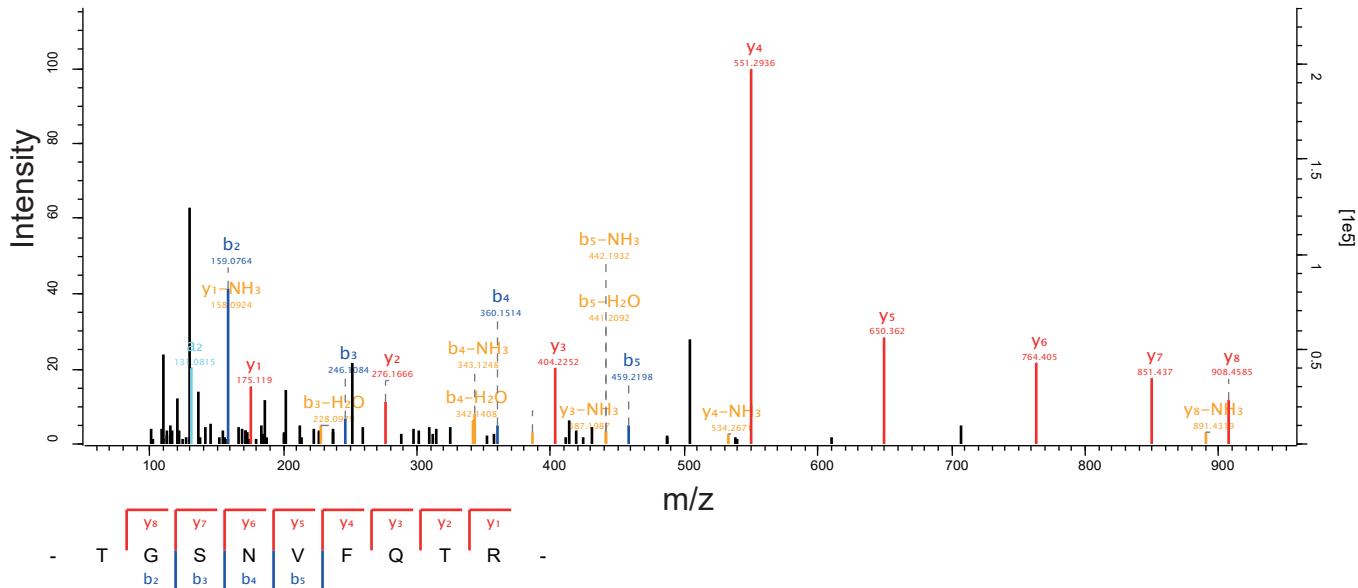


## Endogenous/Synthetic peptide correlation

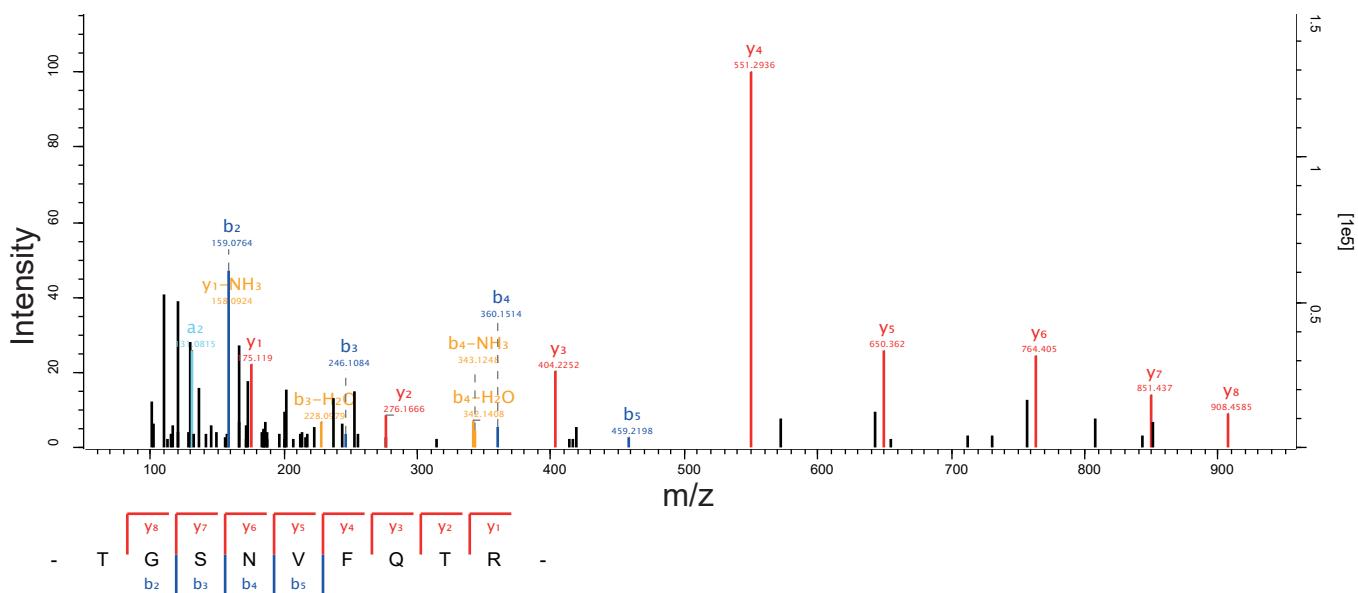


# Calu-3 infected with SARS-CoV-2 HLA-I TGSNVFQTR

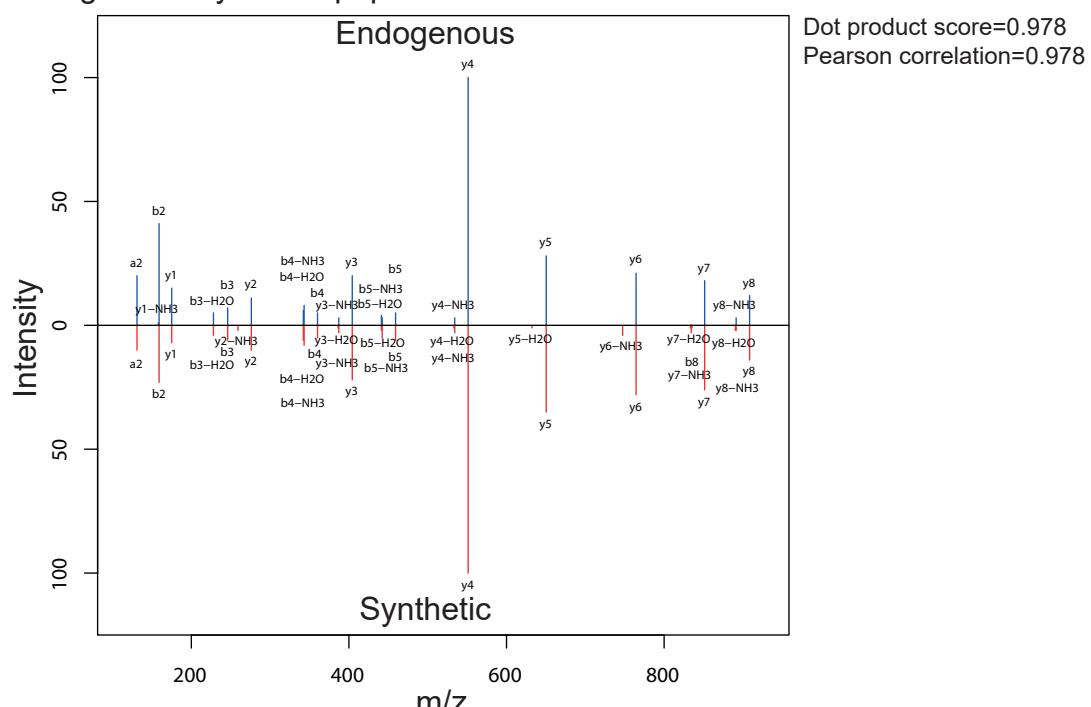
## Endogenous peptide



## Synthetic peptide

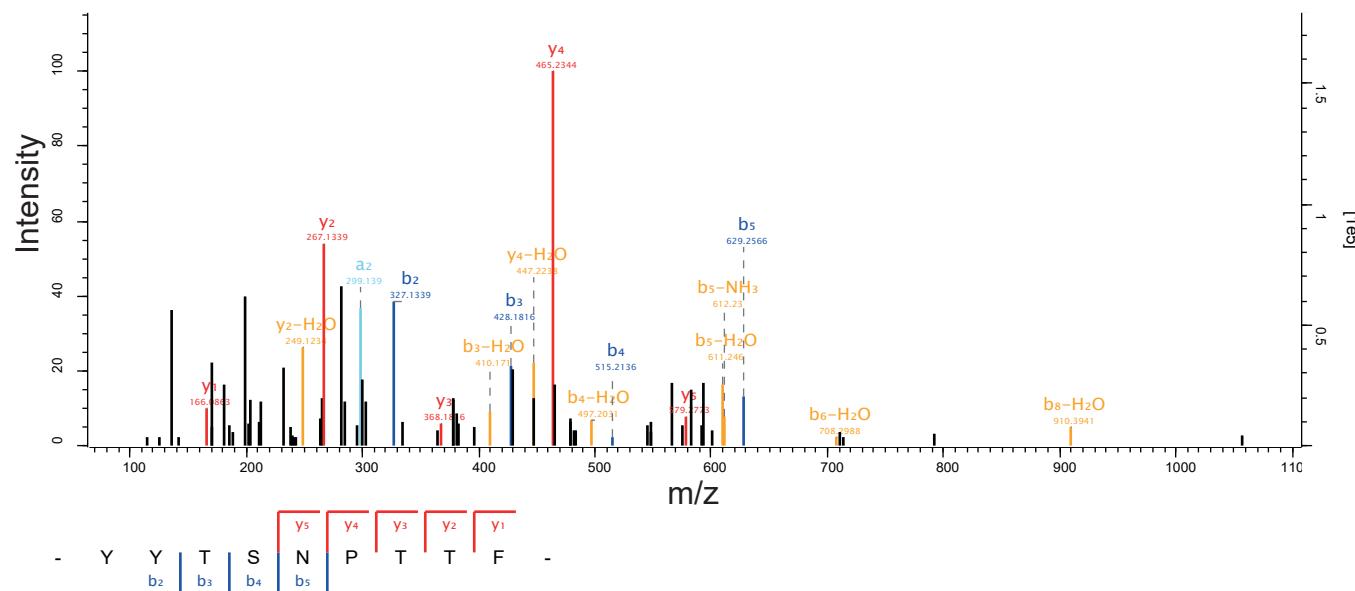


## Endogenous/Synthetic peptide correlation

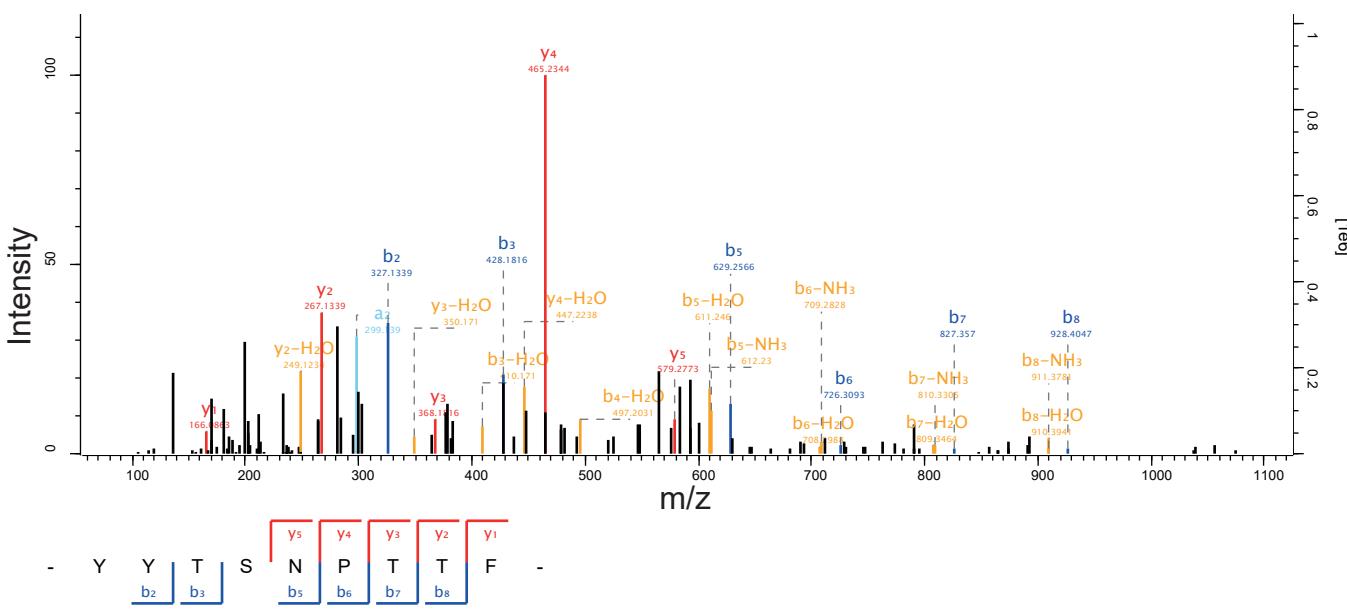


# Calu-3 infected with SARS-CoV-2 HLA-I YYTSNPTTF

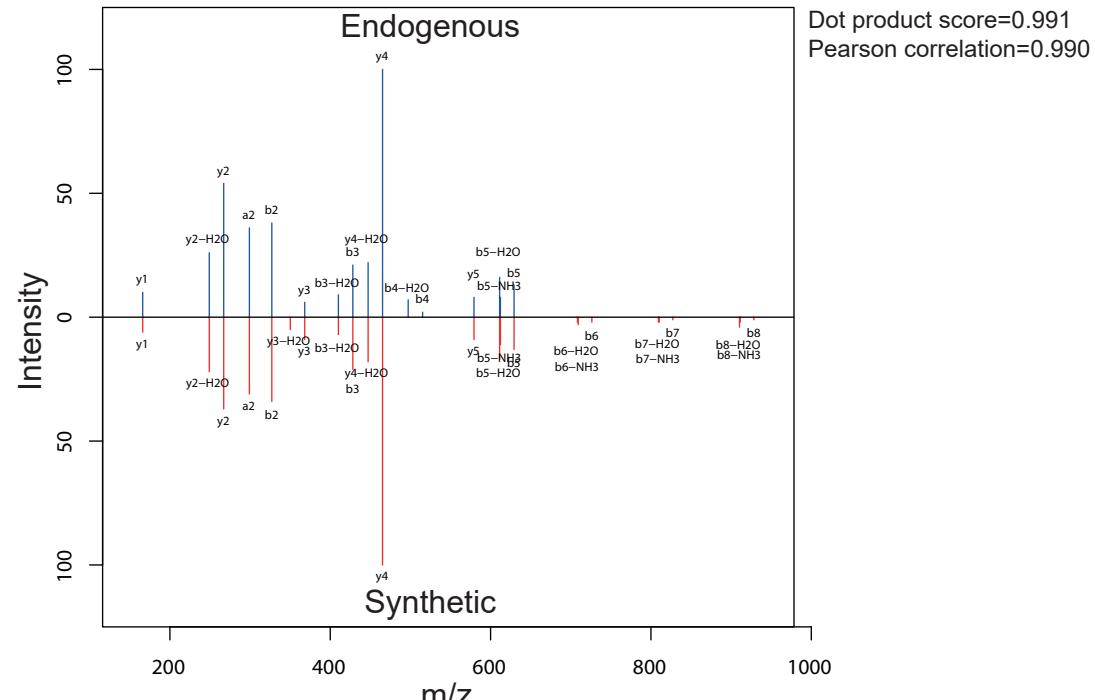
## Endogenous peptide



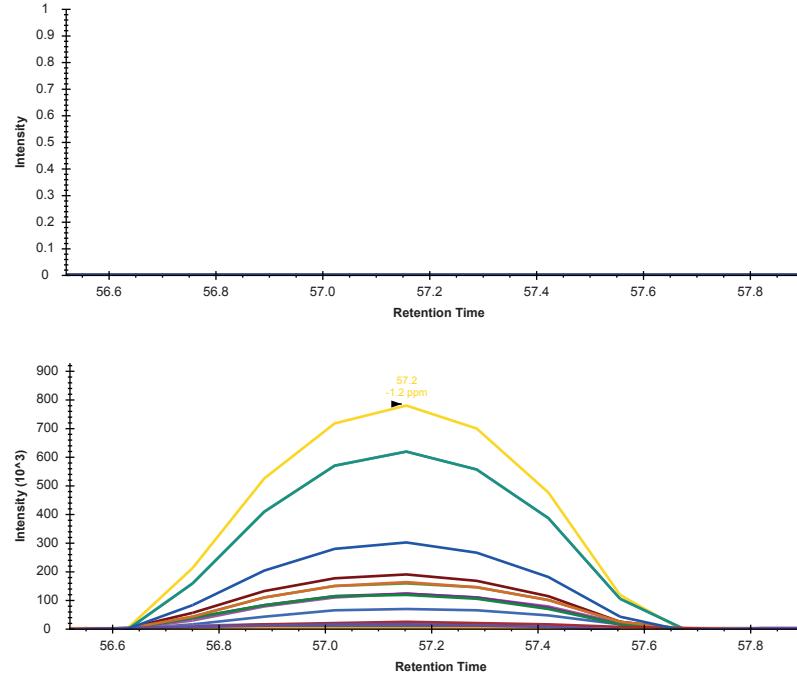
## Synthetic peptide



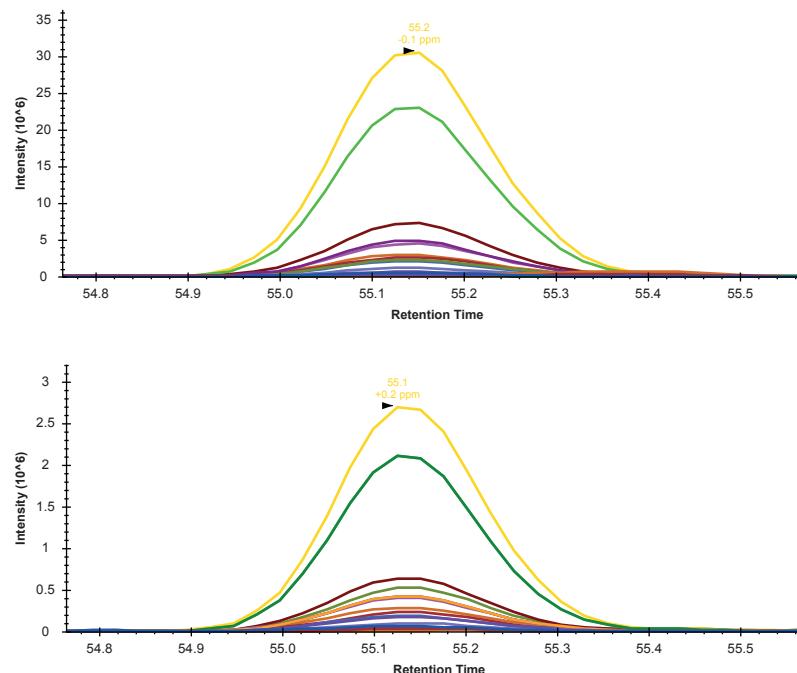
## Endogenous/Synthetic peptide correlation



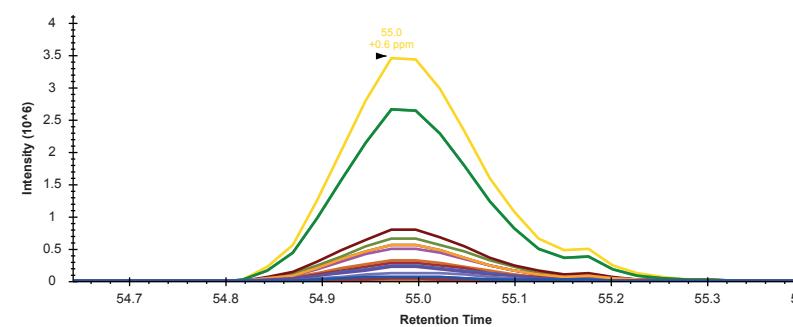
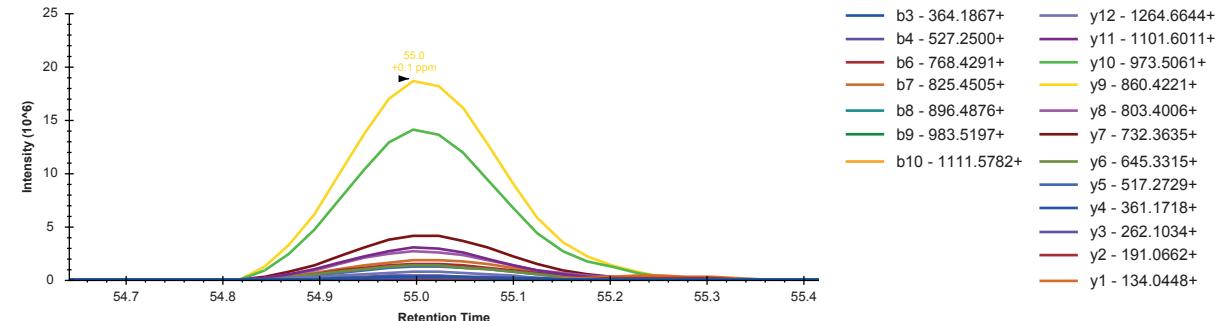
B. Isotopically labeled synthetic peptides  
LSYYKLGASQRVAGD - Synthetic peptide



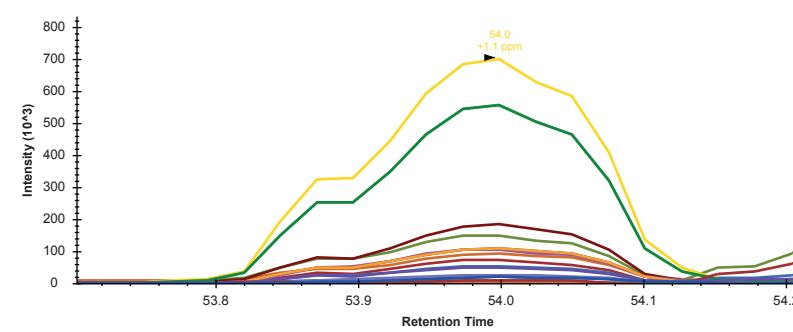
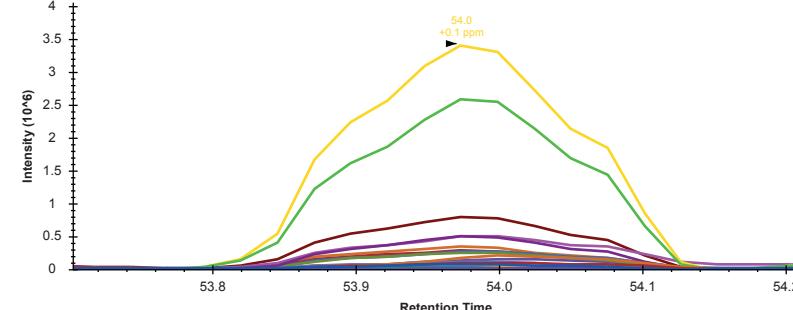
LSYYKLGASQRVAGD - 721.221+A\*11:01+M



LSYYKLGASQRVAGD - 721.221+A\*24:02+M

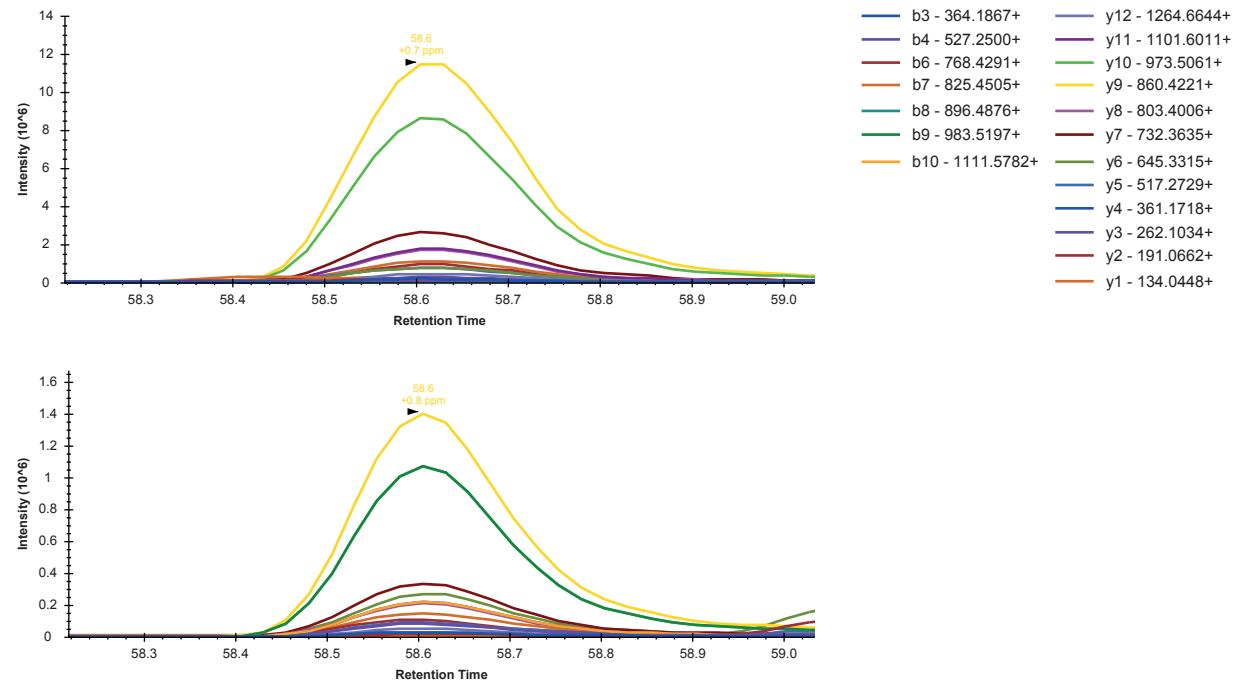


LSYYKLGASQRVAGD - 721.221+A\*03:01+M

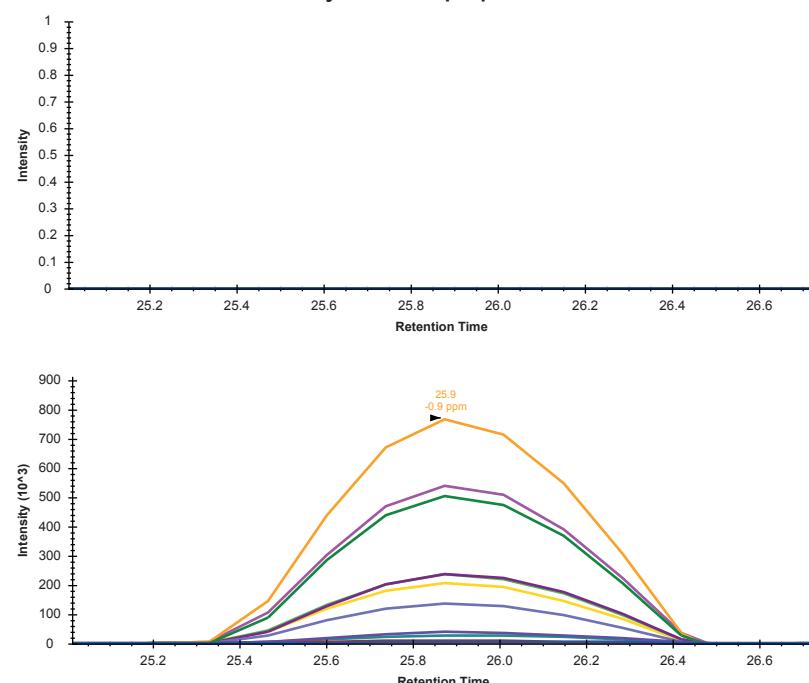


b3 - 364.1867+	y12 - 1264.6644+
b4 - 527.2500+	y11 - 1101.6011+
b6 - 768.4291+	y10 - 973.5061+
b7 - 825.4505+	y9 - 860.4221+
b8 - 896.4876+	y8 - 803.4006+
b9 - 993.5197+	y7 - 732.3635+
b10 - 1111.5782+	y6 - 645.3315+
	y5 - 517.2729+
	y4 - 361.1718+
	y3 - 262.1034+
	y2 - 191.0662+
	y1 - 134.0448+

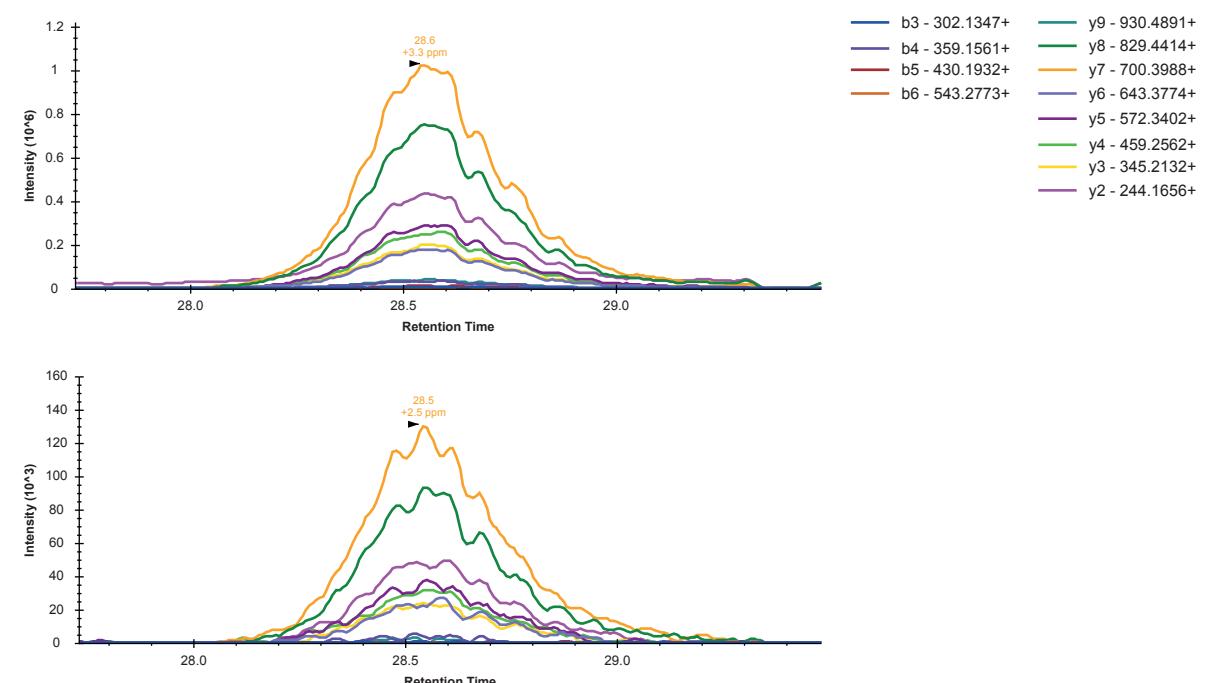
### LSYYKLGASQRVAGD - 721.221+A\*02:01+M



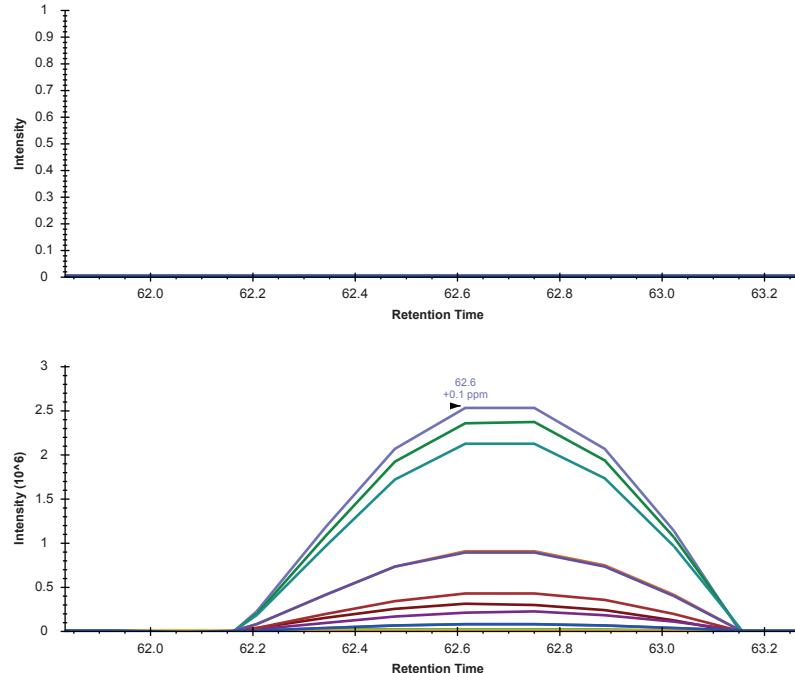
### ATEGALNTPK - Synthetic peptide



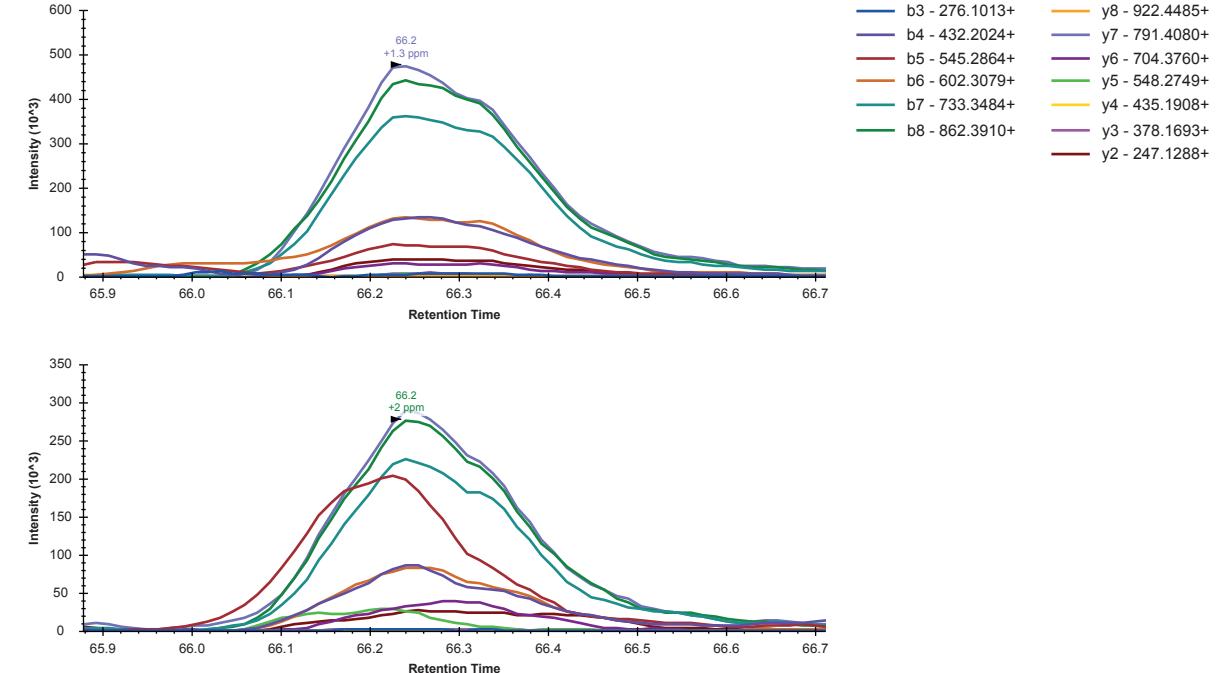
### ATEGALNTPK - 721.221+A\*11:01+N



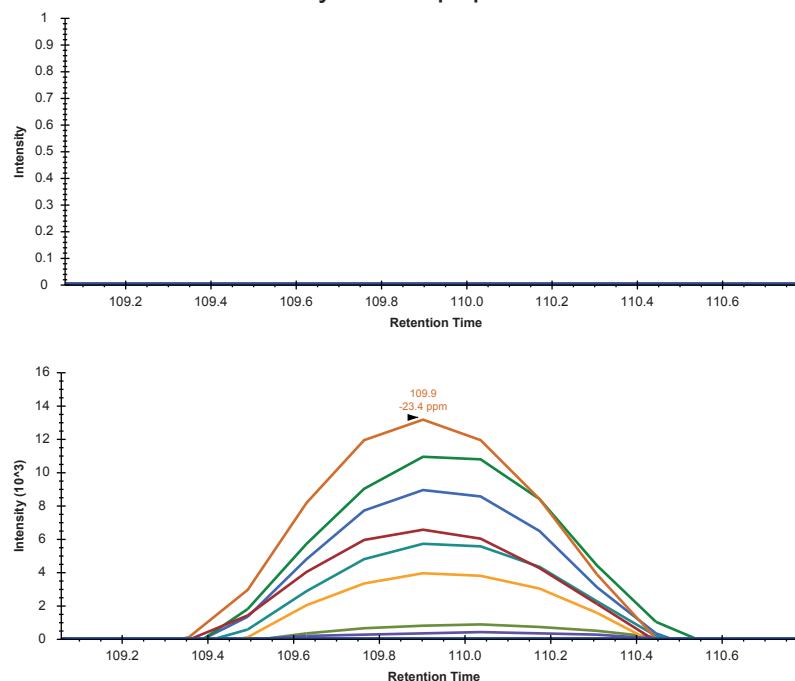
### GMSRIGMEV - Synthetic peptide



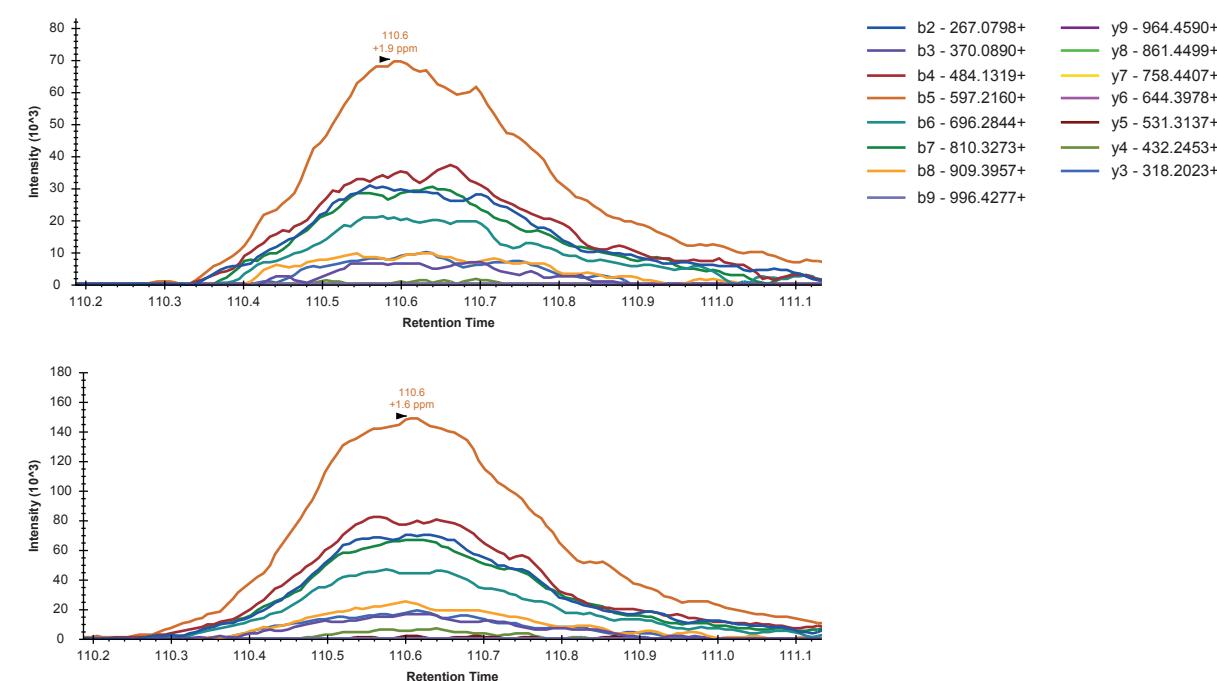
### GMSRIGMEV - IHW01161+N



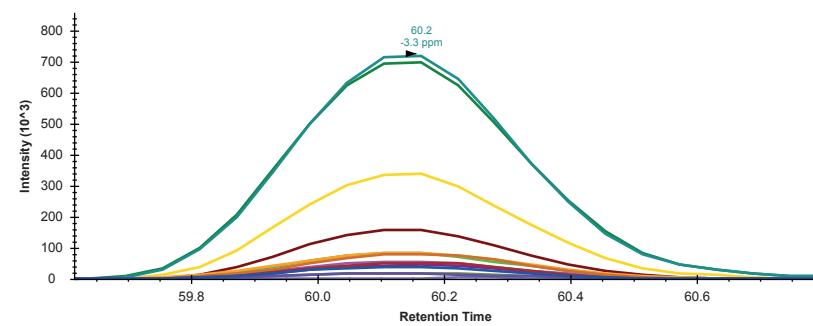
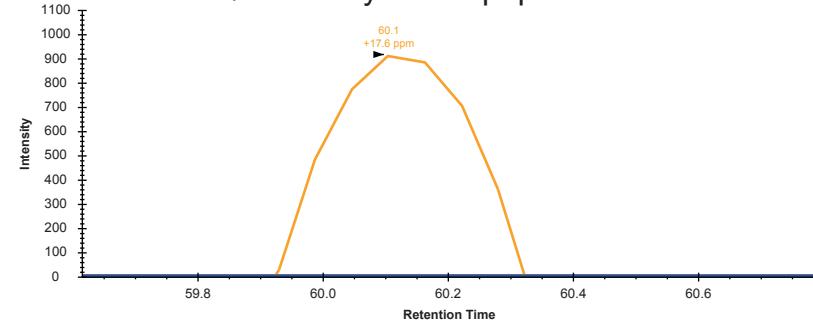
### YCCNIVNVSL - Synthetic peptide



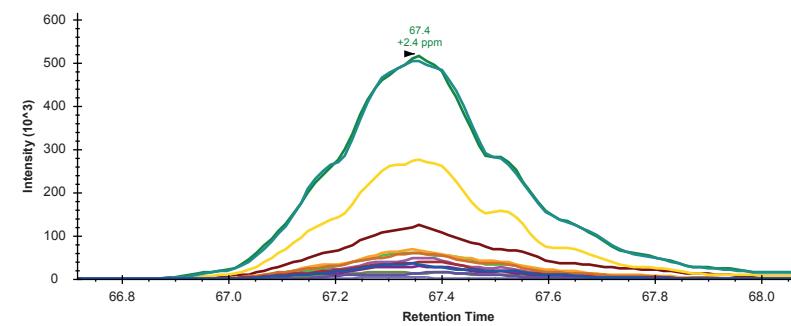
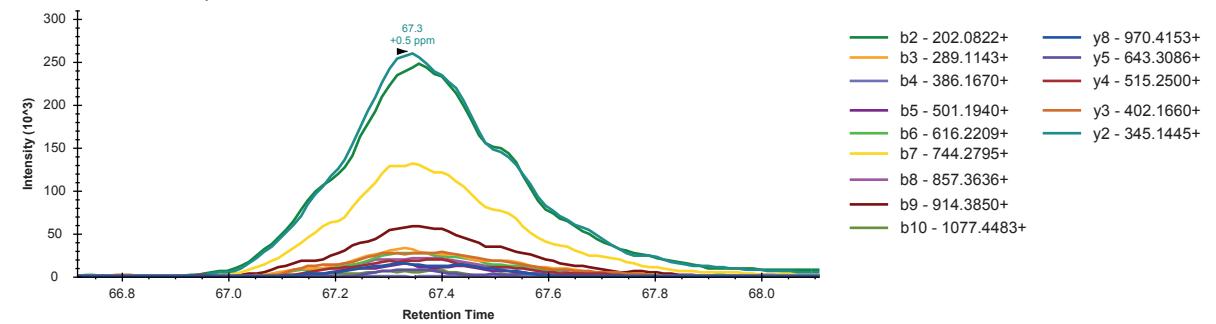
### YCCNIVNVSL - IHW01070+E



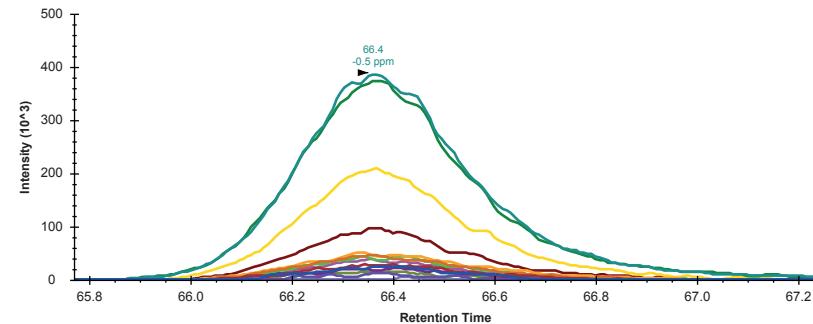
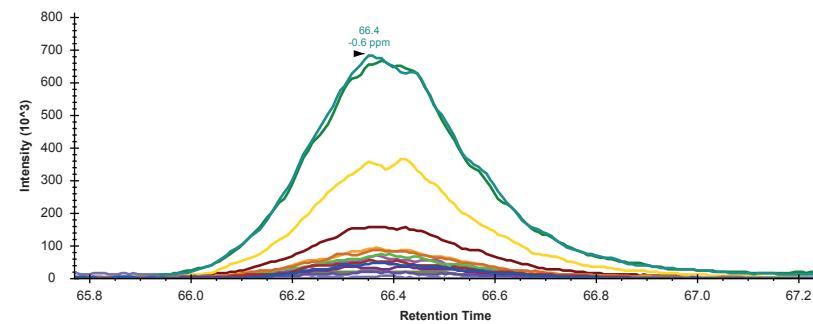
### NSSPDDQIGYY - Synthetic peptide



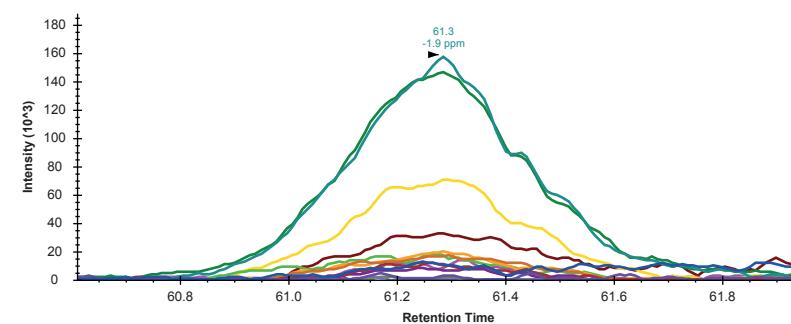
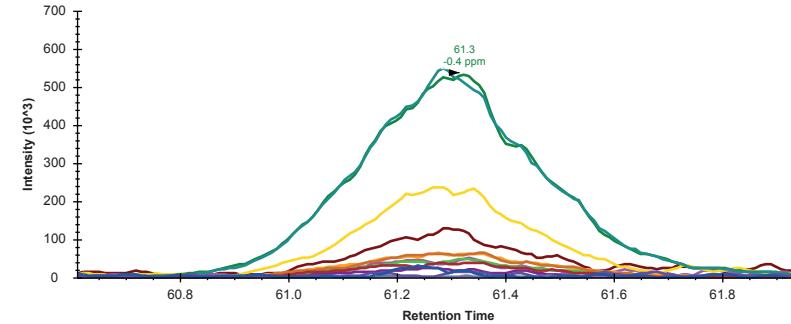
### NSSPDDQIGYY - IHW01161+N



### NSSPDDQIGYY - Calu-6+N



### NSSPDDQIGYY - IHW01070+N



b2 - 202.0822+	y8 - 970.4153+
b3 - 289.1143+	y5 - 643.3086+
b4 - 386.1670+	y4 - 515.2500+
b5 - 501.1940+	y3 - 402.1660+
b6 - 616.2209+	y2 - 345.1445+
b7 - 744.2795+	
b8 - 857.3636+	
b9 - 914.3850+	
b10 - 1077.4483+	