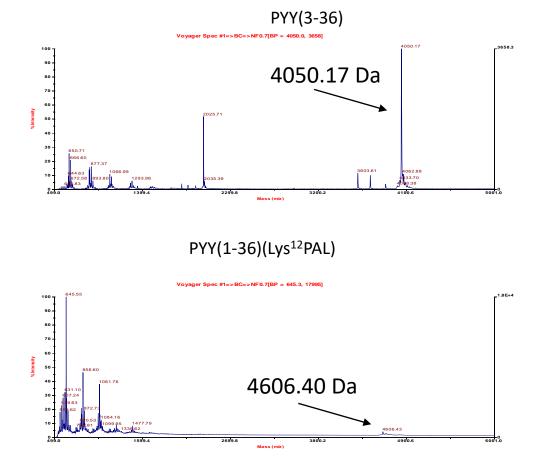
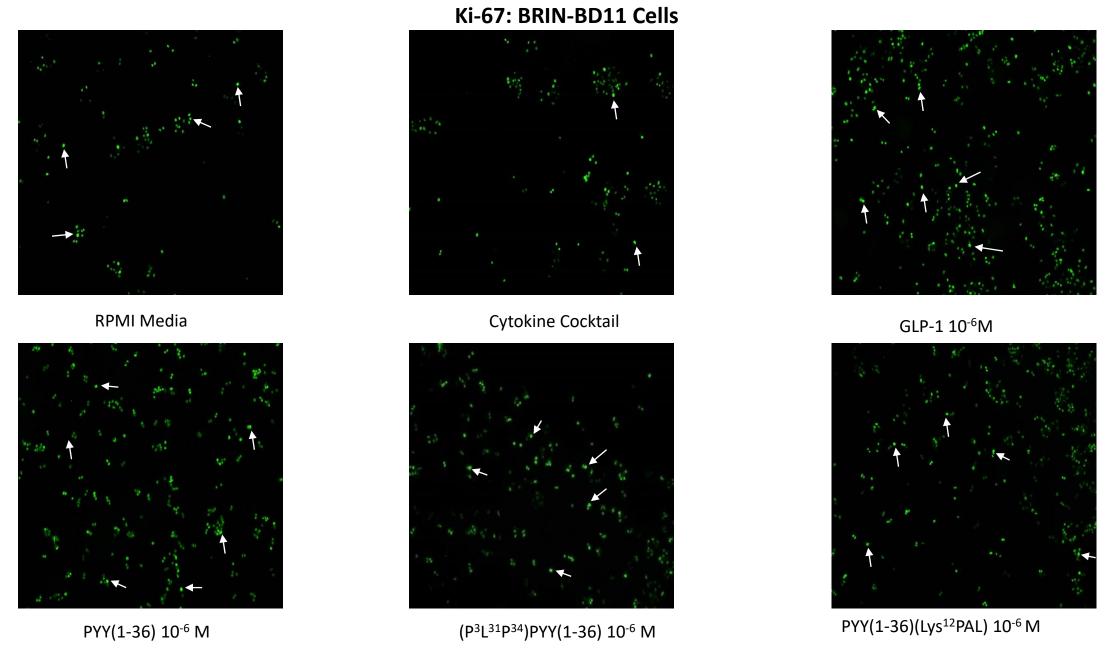


## 

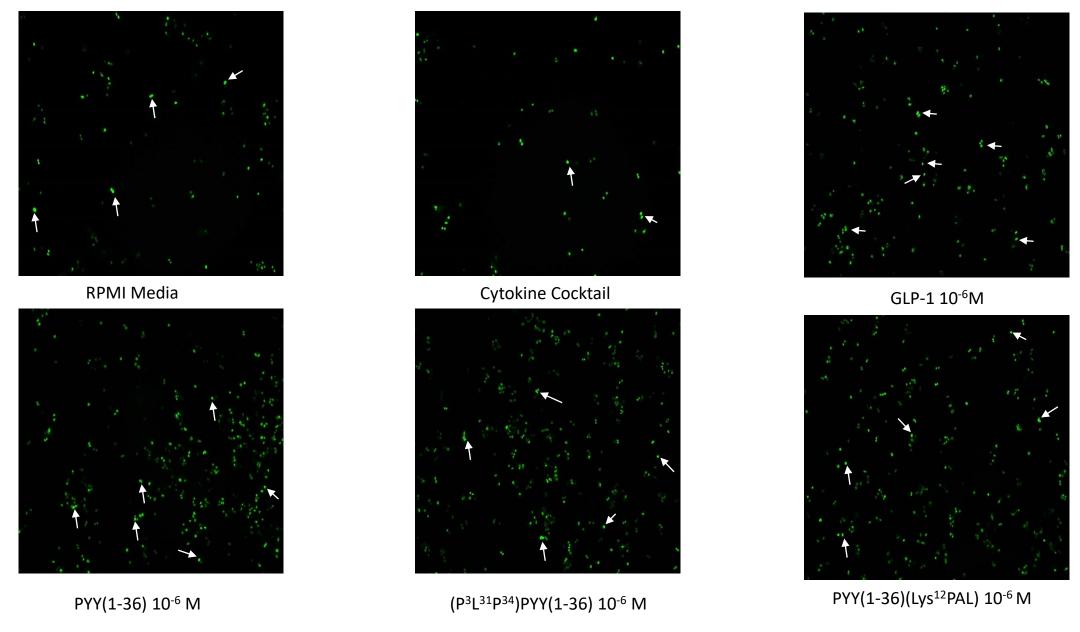


**Supplementary Figure 1.** Representative MS traces for each identified PYY peptide or degradation product, separated via HPLC. Peptide fragment mass was determined by MALDI-TOF, acquired in positive ionisation mode using CHCA as the matrix.



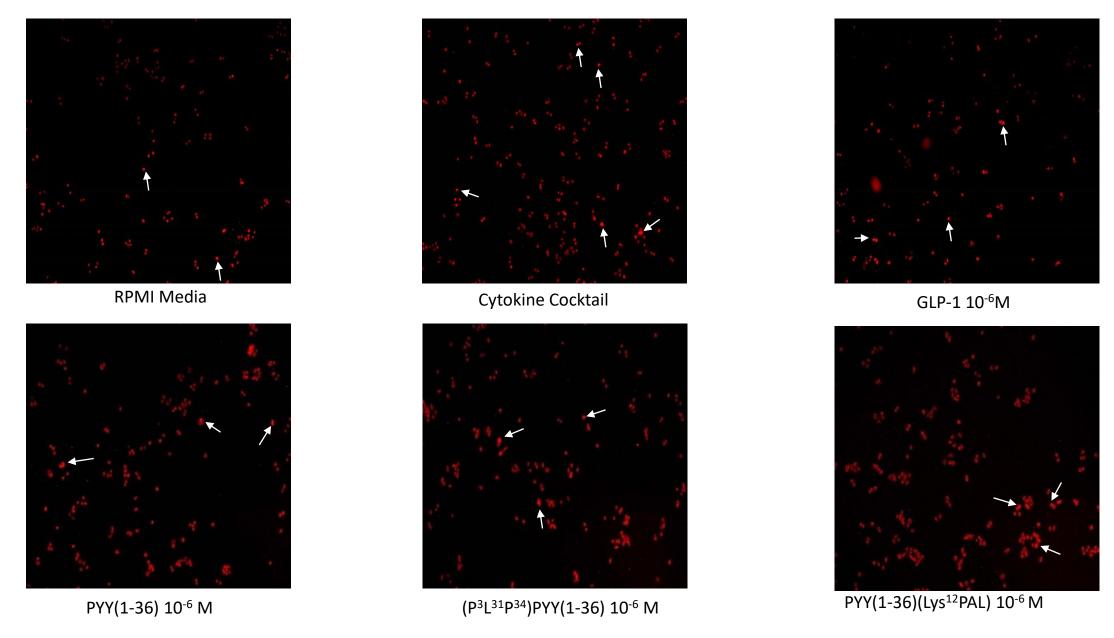
**Supplementary Figure 2.** Representative images for Ki-67 staining for controls (media, cytokine cocktail and GLP-1) as well as each treatment, PYY(1-36), (P<sup>3</sup>L<sup>31</sup>P<sup>34</sup>)PYY(1-36) and PYY(1-36)(Lys<sup>12</sup>PAL), at 10<sup>-6</sup>M, are provided for BRIN-BD11 cells. All images shown are X10 magnification.

## Ki-67: 1.1 B4 Cells



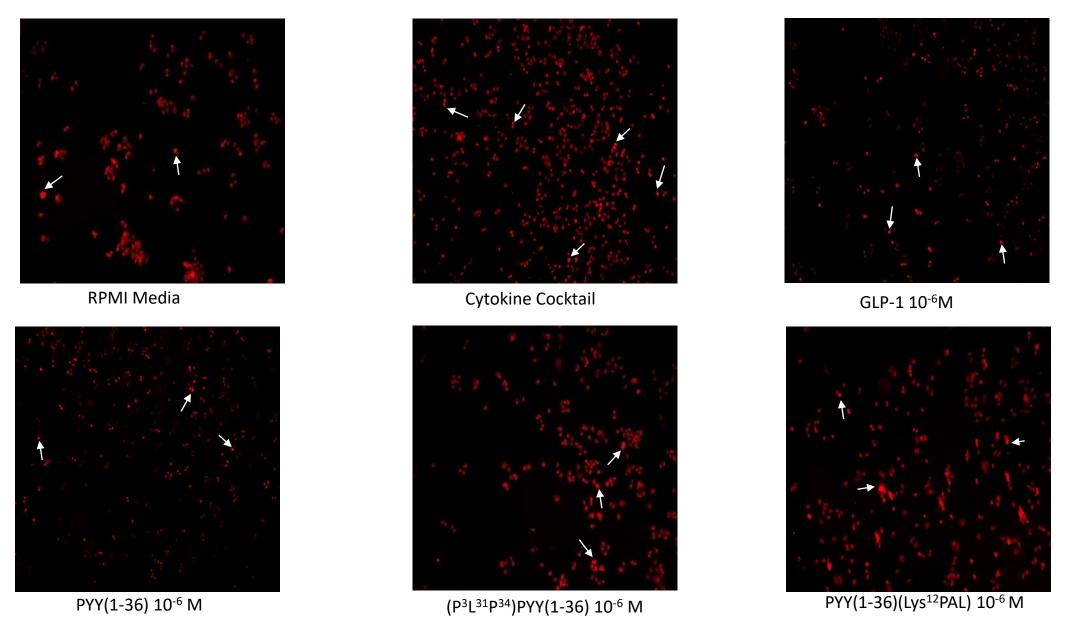
**Supplementary Figure 3.** Representative images for Ki-67 staining for controls (media, cytokine cocktail and GLP-1) as well as each treatment, PYY(1-36), (P<sup>3</sup>L<sup>31</sup>P<sup>34</sup>)PYY(1-36) and PYY(1-36)(Lys<sup>12</sup>PAL), at 10<sup>-6</sup> M, are provided for 1.1 B4 cells. All images shown are X10 magnification.

## **TUNEL: BRIN-BD11 Cells**



**Supplementary Figure 4.** Representative images for TUNEL staining for controls (media, cytokine cocktail and GLP-1) as well as each treatment, PYY(1-36), (P<sup>3</sup>L<sup>31</sup>P<sup>34</sup>)PYY(1-36) and PYY(1-36)(Lys<sup>12</sup>PAL), at 10<sup>-6</sup> M, are provided for BRIN-BD11 cells. All images shown are X10 magnification.

## **TUNEL: BRIN-BD11 Cells**



**Supplementary Figure 5.** Representative images for TUNEL staining for controls (media, cytokine cocktail and GLP-1) as well as each treatment, PYY(1-36), (P<sup>3</sup>L<sup>31</sup>P<sup>34</sup>)PYY(1-36) and PYY(1-36)(Lys<sup>12</sup>PAL), at 10<sup>-6</sup> M, are provided for 1.1 B4 cells. All images shown are X10 magnification.