

## Supplementary Information

### **Kisspeptin prevention of amyloid- $\beta$ peptide neurotoxicity *in vitro***

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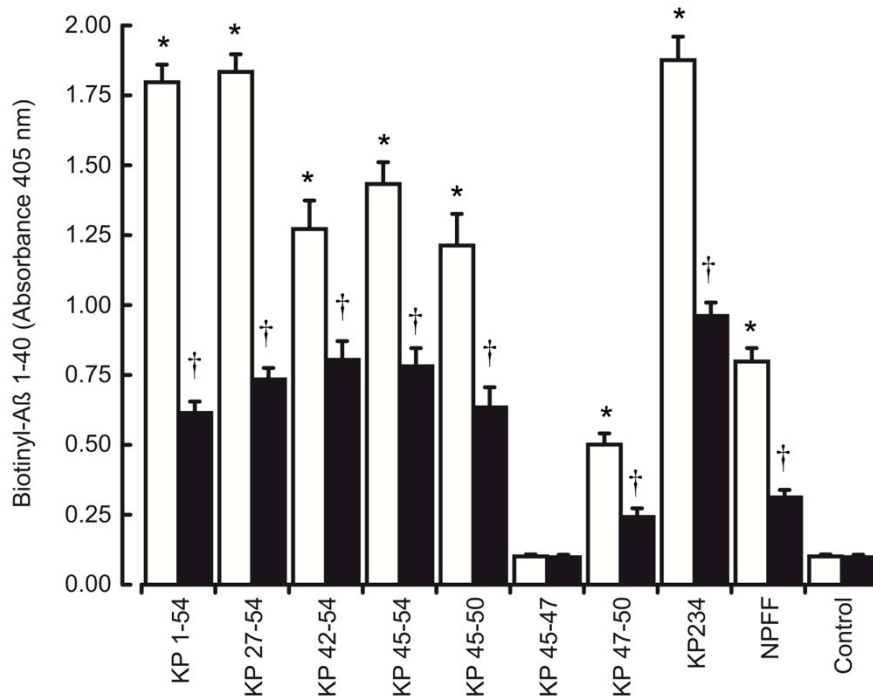


Figure S1: Specific binding of A $\beta$  to KP to peptides. Plates coated with KP 1-54, KP 27-54, KP 42-54, KP 45-54, KP 45-50, KP 45-47, KP 47-50, KP234 or NPFF were incubated with biotinylated A $\beta$  1-42 alone (open columns) or with unlabeled A $\beta$  1-40 (closed columns) and bound material determined by EIA. All results are expressed as mean  $\pm$  sem (n = 8). (\* = P < 0.05 vs buffer alone; † = P < 0.05 vs biotinylated A $\beta$  1-42; one-way ANOVA).

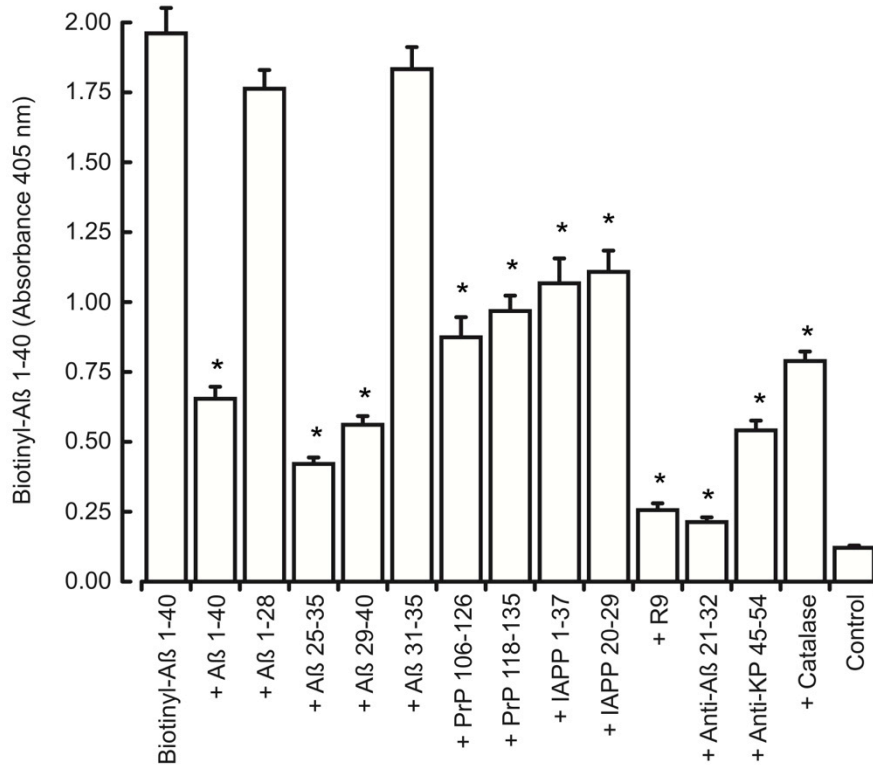


Figure S2: Inhibition of binding of Aβ to KP to peptides. Plates coated with KP 45-50 were incubated with biotinylated Aβ 1-42 alone or plus unlabeled Aβ 1-40, Aβ 1-28, Aβ 25-35, Aβ 29-40, Aβ 31-35, PrP 106-126, PrP 118-135, IAPP 1-37, IAPP 20-29, anti-Aβ peptide R9, anti-Aβ 21-32 monoclonal antibody, anti-KP 45-54 polyclonal antisera or human erythrocyte catalase. The levels of biotinylated Aβ 1-42 were determined by EIA. All results are expressed as mean ± sem (n = 8). (\* = P < 0.05 vs biotinylated Aβ 1-42; one-way ANOVA).

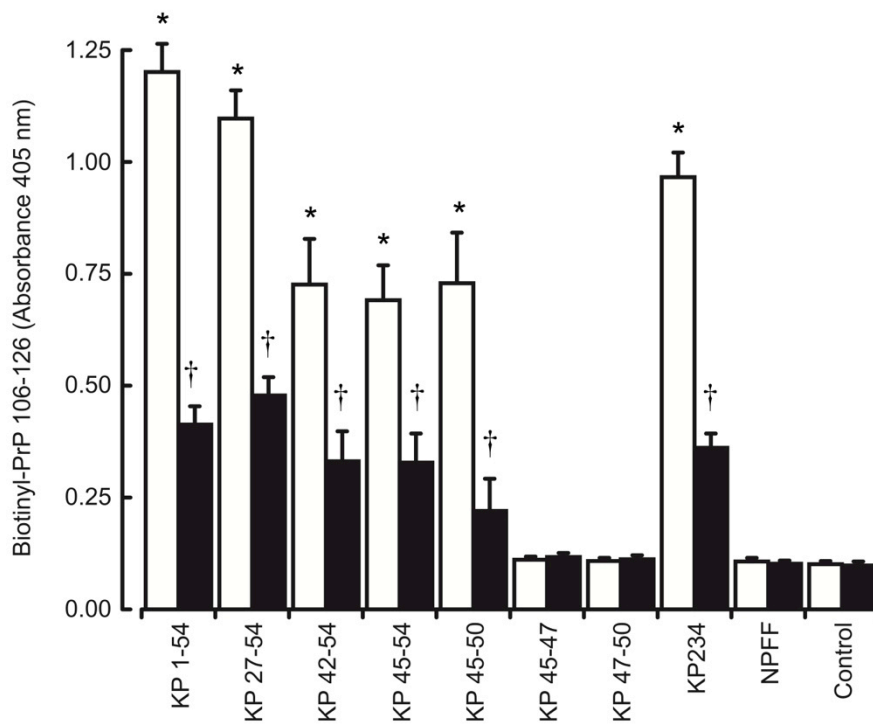


Figure S3: Specific binding of PrP to KP to peptides. Plates coated with KP 1-54, KP 27-54, KP 42-54, KP 45-54, KP 45-50, KP 45-47, KP 47-50, KP234 or NPF were incubated with biotinylated PrP 106-126 alone (open columns) or with unlabeled PrP 106-126 (closed columns) and bound material determined by EIA. All results are expressed as mean  $\pm$  sem (n = 8). (\* = P < 0.05 vs buffer alone; † = P < 0.05 vs biotinylated PrP 106-126; one-way ANOVA).

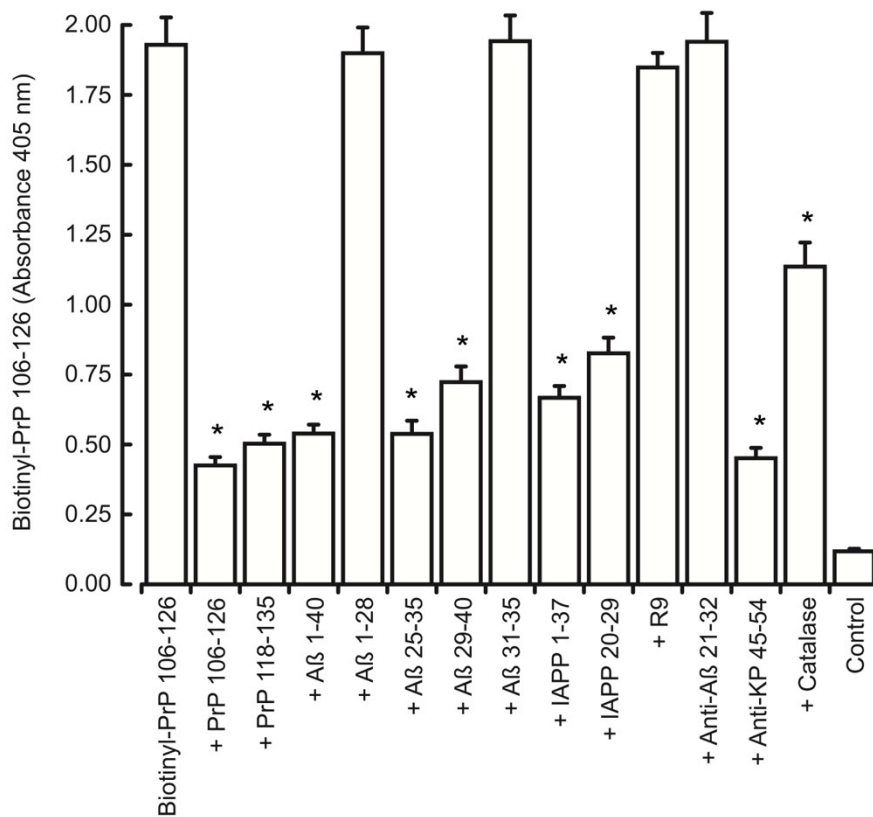


Figure S4: Inhibition of binding of PrP to KP to peptides. Plates coated with KP 45-50 were incubated with biotinylated PrP 106-126 alone or plus unlabeled PrP 106-126, PrP 118-135, Aβ 1-40, Aβ 1-28, Aβ 25-35, Aβ 29-40, Aβ 31-35, IAPP 1-37, IAPP 20-29, anti-Aβ peptide R9, anti-Aβ 21-32 monoclonal antibody, anti-KP 45-54 polyclonal antisera or human erythrocyte catalase. The levels of biotinylated PrP 106-126 were determined by EIA. All results are expressed as mean  $\pm$  sem (n = 8). (\* = P < 0.05 vs biotinylated PrP 106-126; one-way ANOVA).

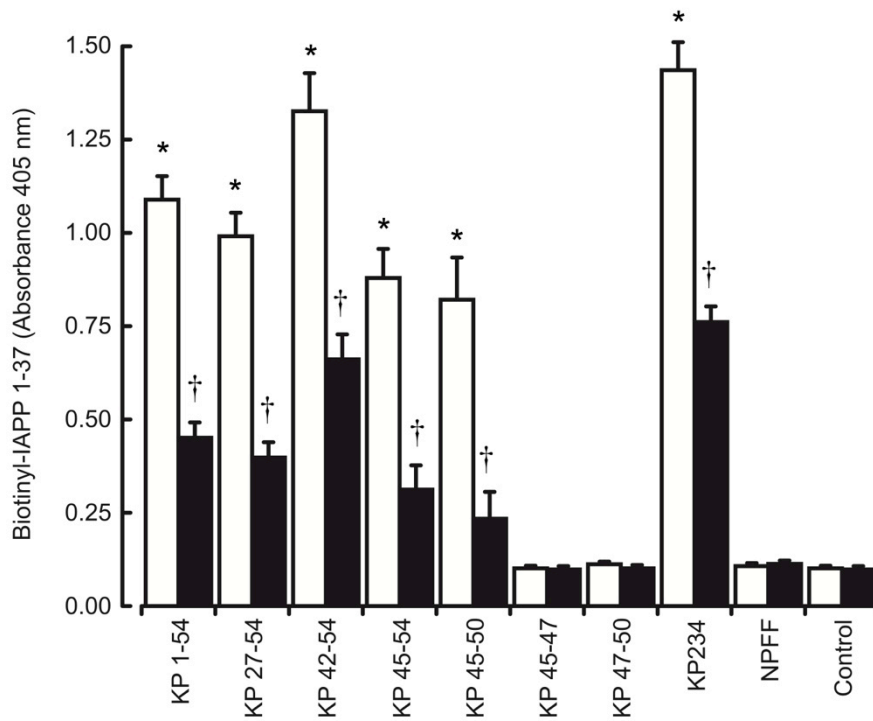


Figure S5: Specific binding of IAPP to KP to peptides. Plates coated with KP 1-54, KP 27-54, KP 42-54, KP 45-54, KP 45-50, KP 45-47, KP 47-50, KP234 or NPFF were incubated with biotinylated IAPP 1-37 alone (open columns) or with unlabeled IAPP 1-37 (closed columns) and bound material determined by EIA. All results are expressed as mean  $\pm$  sem (n = 8). (\* = P < 0.05 vs buffer alone; † = P < 0.05 vs biotinylated IAPP 1-37; one-way ANOVA).

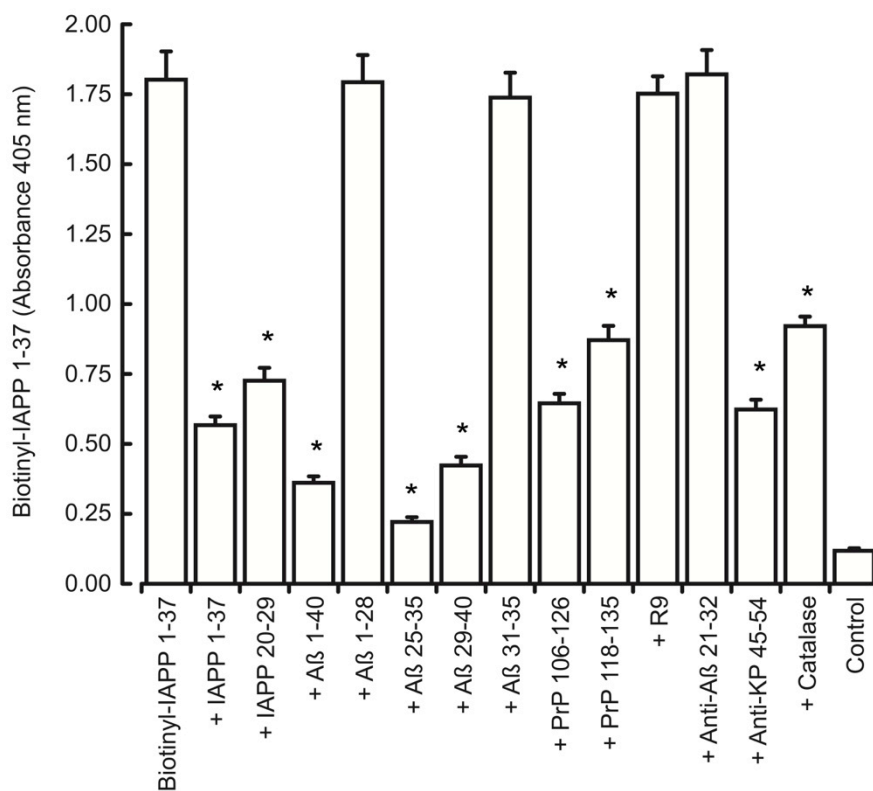


Figure S6: Inhibition of binding of IAPP to KP to peptides. Plates coated with KP 45-50 were incubated with biotinylated IAPP 1-37 alone or plus unlabeled IAPP 1-37, IAPP 20-29, Aβ 1-40, Aβ 1-28, Aβ 25-35, Aβ 29-40, Aβ 31-35, PrP 106-126, PrP 118-135, anti-Aβ peptide R9, anti-Aβ 21-32 monoclonal antibody, anti-KP 45-54 polyclonal antisera or human erythrocyte catalase. The levels of biotinylated PrP 106-126 were determined by EIA. All results are expressed as mean ± sem (n = 8). (\* = P < 0.05 vs biotinylated PrP 106-126; one-way ANOVA).