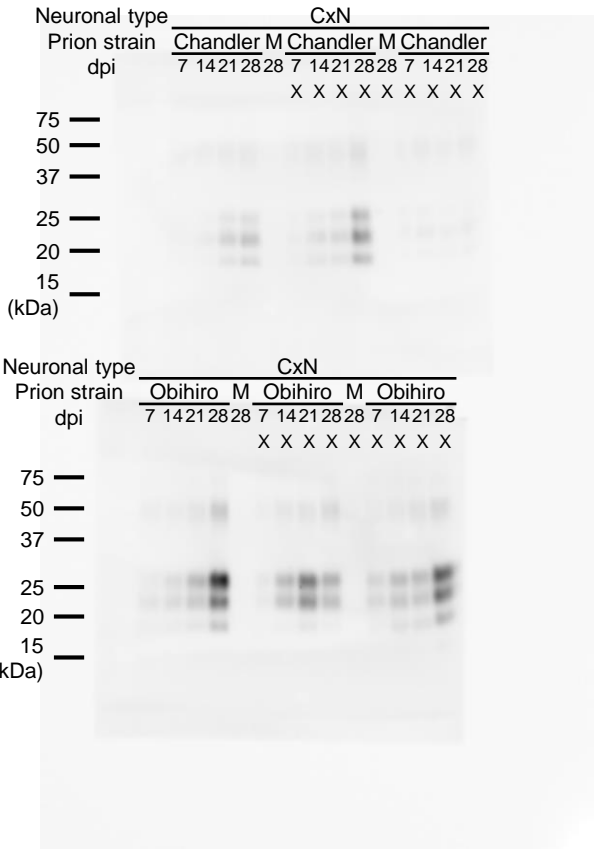
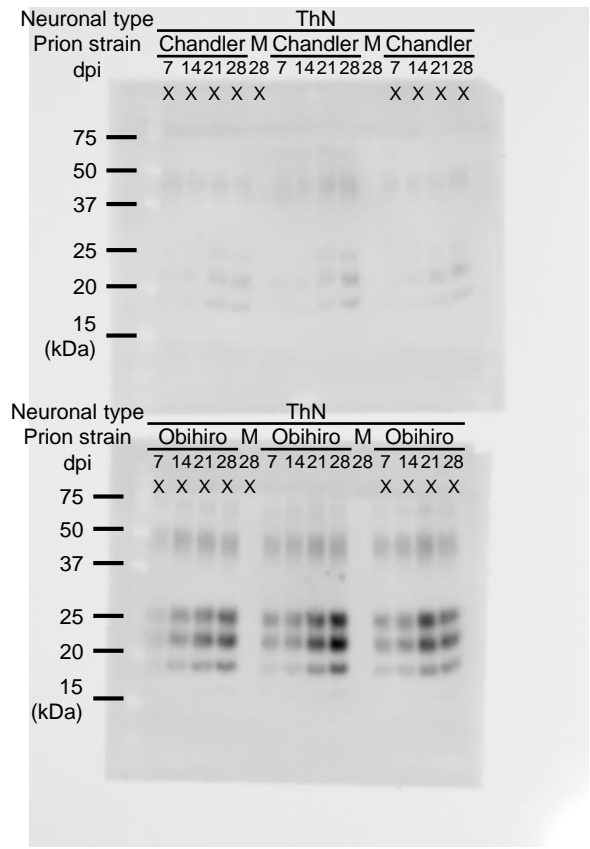


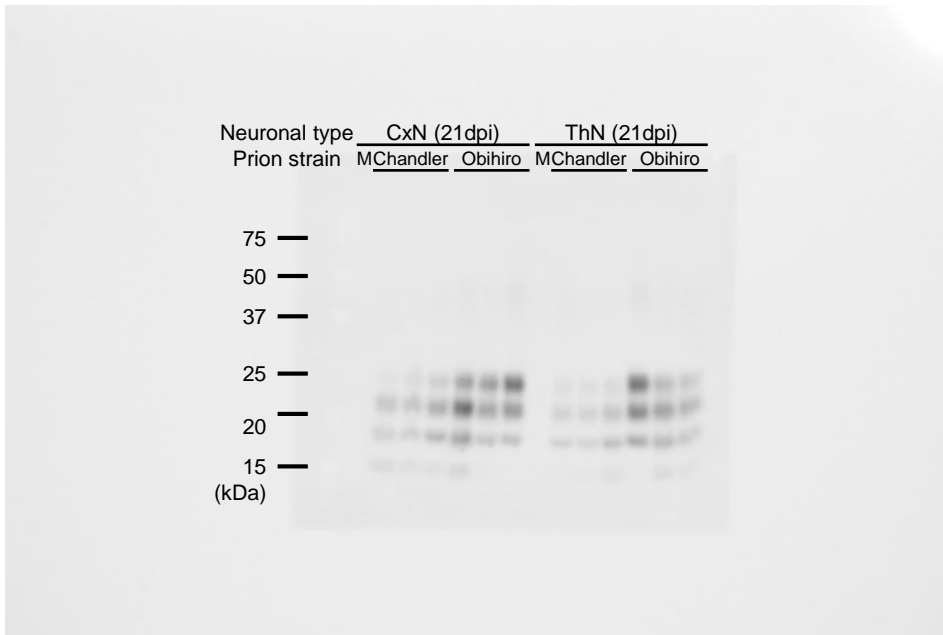
Original blot images used for Fig 1A



Original blot images used for Fig 1A



Original blot image used for Fig 1C



S6\_raw images.

Original blot images shown in Figure 1A, 1B, and 1C. CxN, cerebral cortical neuronal culture; ThN, thalamic neuronal culture; Chandler and Obihiro, mouse-adapted scrapie strains; M, Mock-infected neurons; dpi, days post infection; X, lanes not shown in the Figure. Chemiluminescence signals were acquired by LAS-3000 chemiluminescence imager (Fuji film).

(A)

Blot 1 (14dpi, target: PERK,  $\beta$ III-tubulin, eIF2 $\alpha$ )

MWM	CxN						ThN						MWM
	M	O	O	M	M	O	M	O	M	O	M	O	

Strip 1: PERK (100-250 kDa)  
Strip 2:  $\beta$ III-tubulin (50 kDa)  
Strip 3: eIF2 $\alpha$  (37 kDa)

Blot 4 (21dpi, target: p-PERK,  $\beta$ III-tubulin, p-eIF2 $\alpha$ )

MWM	CxN						ThN						MWM
	M	M	M	O	O	O	M	O	M	O	M	O	

Strip 1: p-PERK (100-250 kDa)  
Strip 2:  $\beta$ III-tubulin (50 kDa)  
Strip 3: p-eIF2 $\alpha$  (37 kDa)

Blot 2 (14dpi, target: p-PERK,  $\beta$ III-tubulin, p-eIF2 $\alpha$ )

MWM	CxN						ThN						MWM
	M	O	M	O	M	O	M	O	M	O	M	O	

Strip 1: p-PERK (100-250 kDa)  
Strip 2:  $\beta$ III-tubulin (50 kDa)  
Strip 3: p-eIF2 $\alpha$  (37 kDa)

Blot 5 (28dpi, targeting PERK,  $\beta$ III-tubulin, eIF2 $\alpha$ )

MWM	CxN						ThN						MWM
	M	O	M	O	M	O	M	O	M	O	M	O	

Strip 1: PERK (100-250 kDa)  
Strip 2:  $\beta$ III-tubulin (50 kDa)  
Strip 3: eIF2 $\alpha$  (37 kDa)

Blot 3 (21dpi, target: PERK,  $\beta$ III-tubulin, eIF2 $\alpha$ )

MWM	CxN						ThN						MWM
	M	M	M	O	O	O	M	O	M	O	M	O	

Strip 1: PERK (100-250 kDa)  
Strip 2:  $\beta$ III-tubulin (50 kDa)  
Strip 3: eIF2 $\alpha$  (37 kDa)

Blot 6 (28dpi, target: p-PERK,  $\beta$ III-tubulin, p-eIF2 $\alpha$ )

MWM	CxN						ThN						MWM
	M	O	M	O	M	O	M	O	M	O	M	O	

Strip 1: p-PERK (100-250 kDa)  
Strip 2:  $\beta$ III-tubulin (50 kDa)  
Strip 3: p-eIF2 $\alpha$  (37 kDa)

(B)

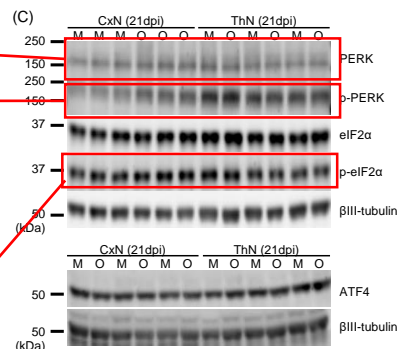
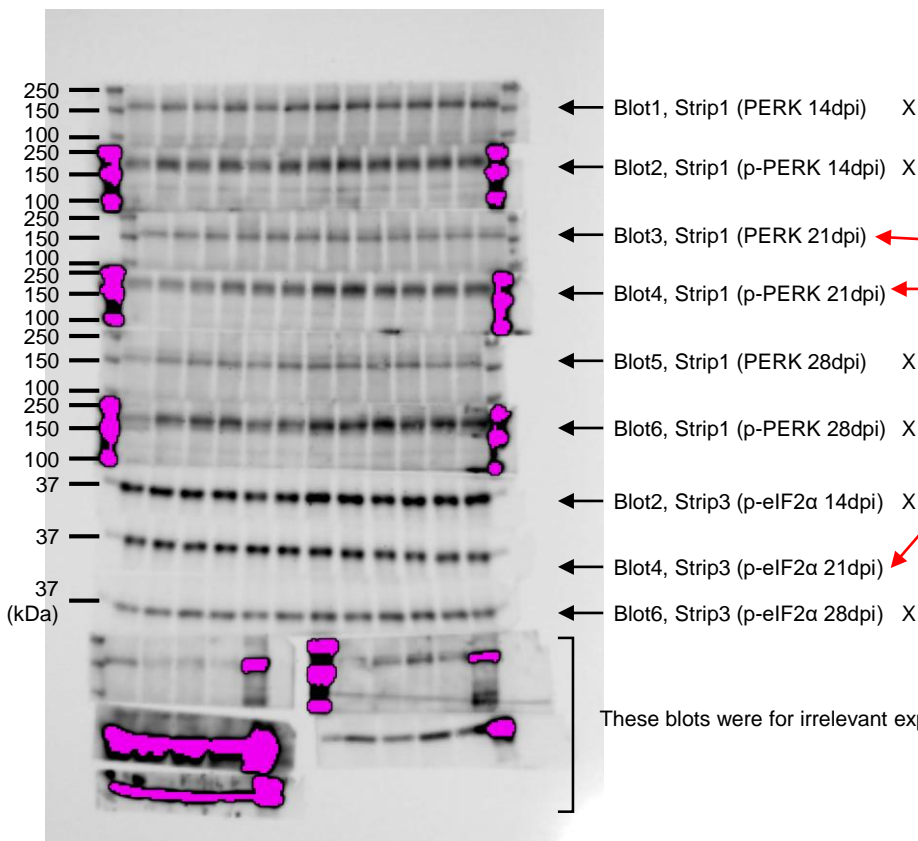
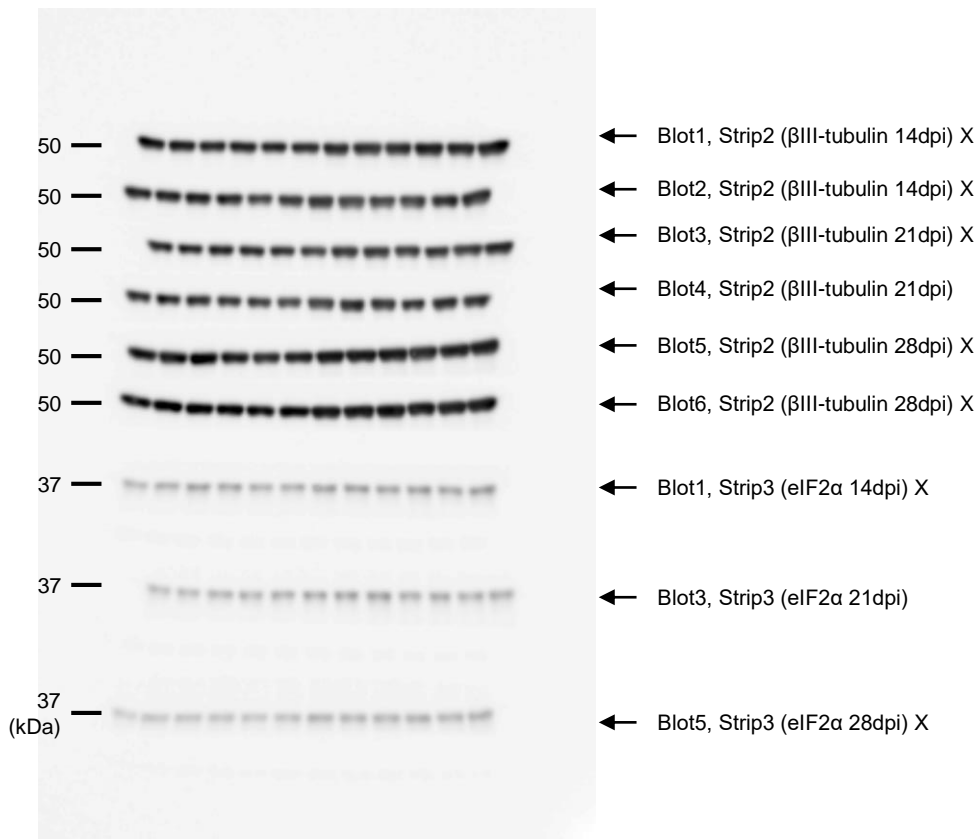


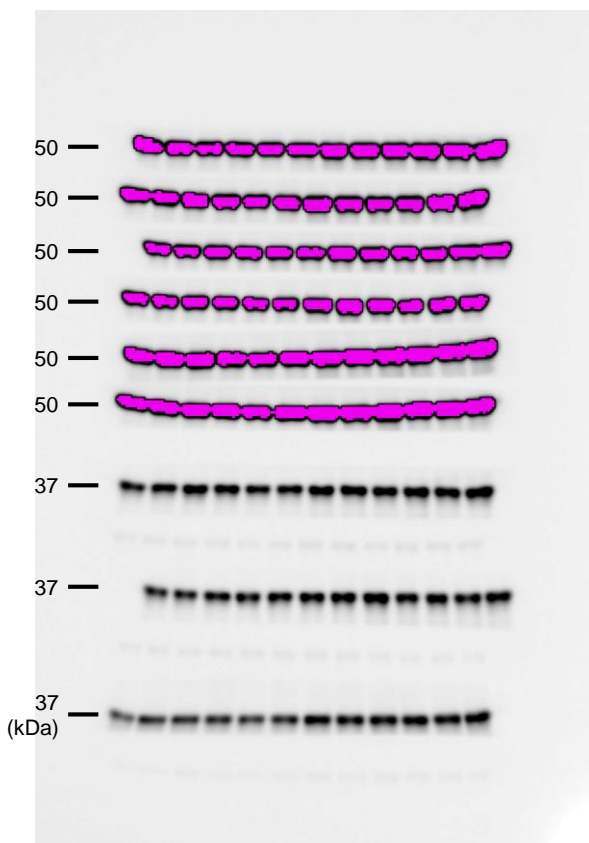
Fig. 3C

S6\_raw images. (continued)

Original blot images for Fig 3C. The layouts (A) and images of original blots shown in Fig. 3C. MWM, pre-stained molecular weight marker. (B) Due to the difference of molecular weights of PERK /p-PERK, eIF2 $\alpha$ /p-eIF2 $\alpha$ , and  $\beta$ III-tubulin, membranes were cut into three pieces according to bands of the pre-stained molecular weight marker loaded on the left- and right-most wells (at around 100 kDa and 45 kDa). Strips from a higher molecular weight range were used for the detection of PERK/p-PERK, those from a middle molecular weight range were used for the detection of  $\beta$ III-tubulin, and the remaining strips with a lower molecular weight range were used for the detection of eIF2 $\alpha$ /p-eIF2 $\alpha$ . X, images that were not used for the blot images of Fig. 3C.



Original blot for the  $\beta$ III-tubulin detection as an internal marker for eIF2 $\alpha$  PERK detection in Fig. 3C.



Original blot for the eIF2 $\alpha$  detection in Fig. 3C.

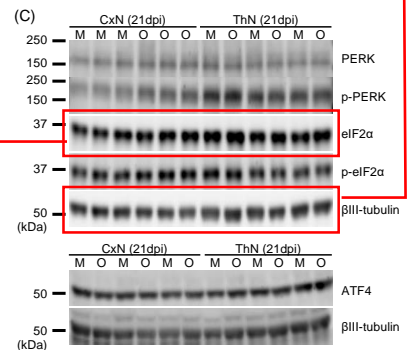
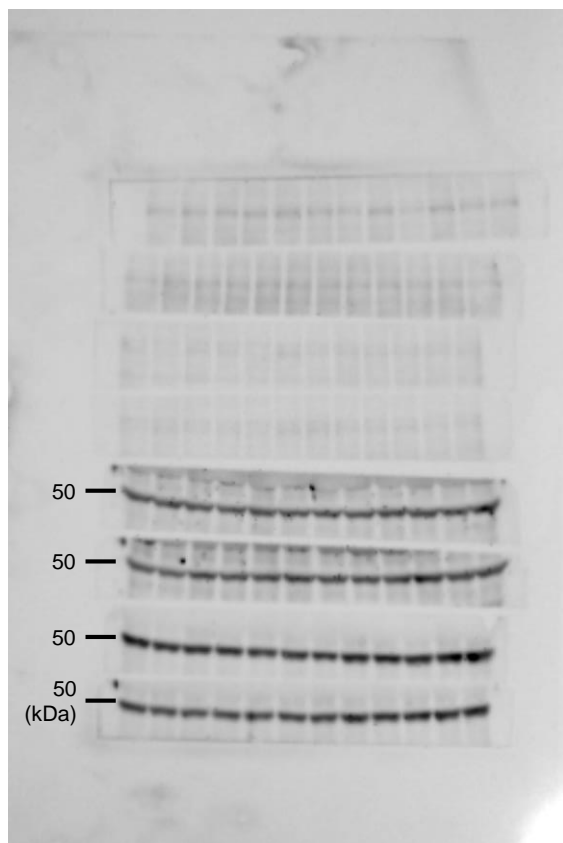


Fig. 3C

Original blot images for Fig. 3C, continued.

Blot on the top were further exposed to obtain signals of eIF2 $\alpha$  (bottom)

Order of loading  
 MWM — CxN — ThN — MWM  
 M O M O M O M O M O M O



These blots were for irrelevant experiment X

- ← Blot7, 1<sup>st</sup> (ATF4 7dpi) X
- ← Blot8, 1<sup>st</sup> (ATF4 14dpi) X
- ← Blot9, 1<sup>st</sup> (ATF4 21dpi)
- ← Blot10, 1<sup>st</sup> (ATF4 28dpi) X

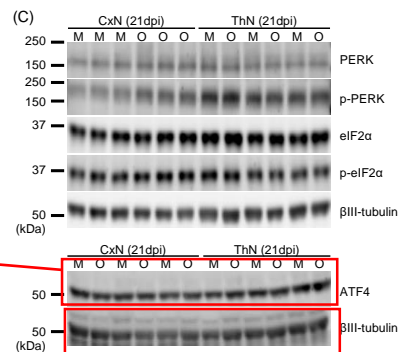
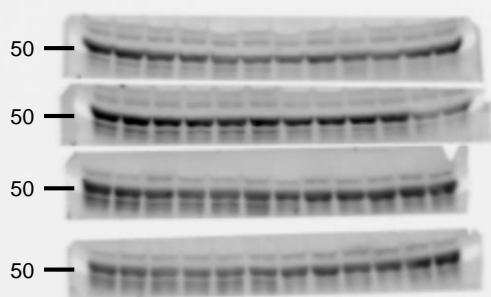


Fig. 3C

Original blot for the ATF4 detection in Fig. 3C.



- ← Blot7, 2<sup>nd</sup> (βIII-tubulin 7dpi) X
- ← Blot8, 2<sup>nd</sup> (βIII-tubulin 14dpi) X
- ← Blot9, 2<sup>nd</sup> (βIII-tubulin 21dpi)
- ← Blot10, 2<sup>nd</sup> (βIII-tubulin 28dpi) X

Original blot for the βIII-tubulin detection as internal marker for ATF4 detection in Fig. 3C.

Original blot images for Fig. 3C, continued.

For relative quantification and normalization of ATF4, blots were first probed with anti-ATF4 antibody (top) and after the detection of ATF4 by chemiluminescence, HRP conjugated to secondary antibody was inactivated with hydrogen peroxide treatment (15% H<sub>2</sub>O<sub>2</sub> in PBS, for 30 min). After confirmation of the disappearance of chemiluminescence signal, blots were then secondarily probed with anti-βIII tubulin antibody for the detection of βIII tubulin as an internal marker.