

1 **Supplementary Data**

2

3 **Supplementary Figure 1: qRT-PCR for *mcl-1*, *bcl-x*, *bax* and *bak* at the onset of**
4 **neurogenesis.** Endogenous expression of *mcl-1*, *bcl-x*, *bax* and *bak* mRNA transcripts in the
5 spinal cord of E10 and E12 wild type mice.

6

7

8

9 **Supplementary Figure 2: Gene dosage affects the onset of apoptosis in the brainstem.**

10 **(a)** Photomicrograph of cresyl violet stained E11 sagittal embryo. Black box indicates region of
11 brainstem examined. **(b)** Representative photomicrographs of sagittal brainstem sections from
12 E11 Ctl, Mcl-1 Het:Bcl-x Het, MKO, MKO:Bcl-x Het, BKO, Mcl-1 Het:BKO and DKO
13 animals. Apoptotic cells are labeled by active caspase-3 immunohistochemistry, while cresyl
14 violet staining shows tissue histology. Larger boxed area in **b** indicates region of higher
15 magnification photomicrographs for active caspase-3 stained sections, while smaller inset
16 indicates region shown in cresyl violet photomicrographs. R= rostral, C= caudal, B= basal, A=
17 apical.

18 **Supplementary Figure 3: Gene dosage affects the onset of apoptosis in the forebrain.**

19 **(a)** Photomicrograph of cresyl violet stained E11 sagittal embryo. Black box indicates region of
20 forebrain examined. **(b)** Representative photomicrographs of sagittal forebrain sections from E11
21 Ctl, Mcl-1 Het:Bcl-x Het, MKO, MKO:Bcl-x Het, BKO, Mcl-1 Het:BKO and DKO animals.
22 Apoptotic cells are labeled by active caspase-3 immunohistochemistry, while cresyl violet
23 staining shows tissue histology. Larger boxed area in **b** indicates region of higher magnification
24 photomicrographs for active caspase-3 stained sections, while smaller inset indicates region
25 shown in cresyl violet photomicrographs. R= rostral, C= caudal, B= basal, A= apical.

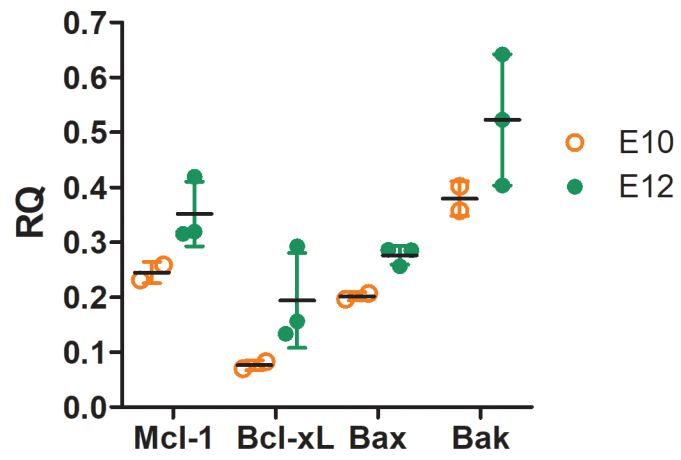
26

27 **Supplementary Figure 4: Expression of Mcl-1 and Bcl-xl protein in spinal cord, brainstem**

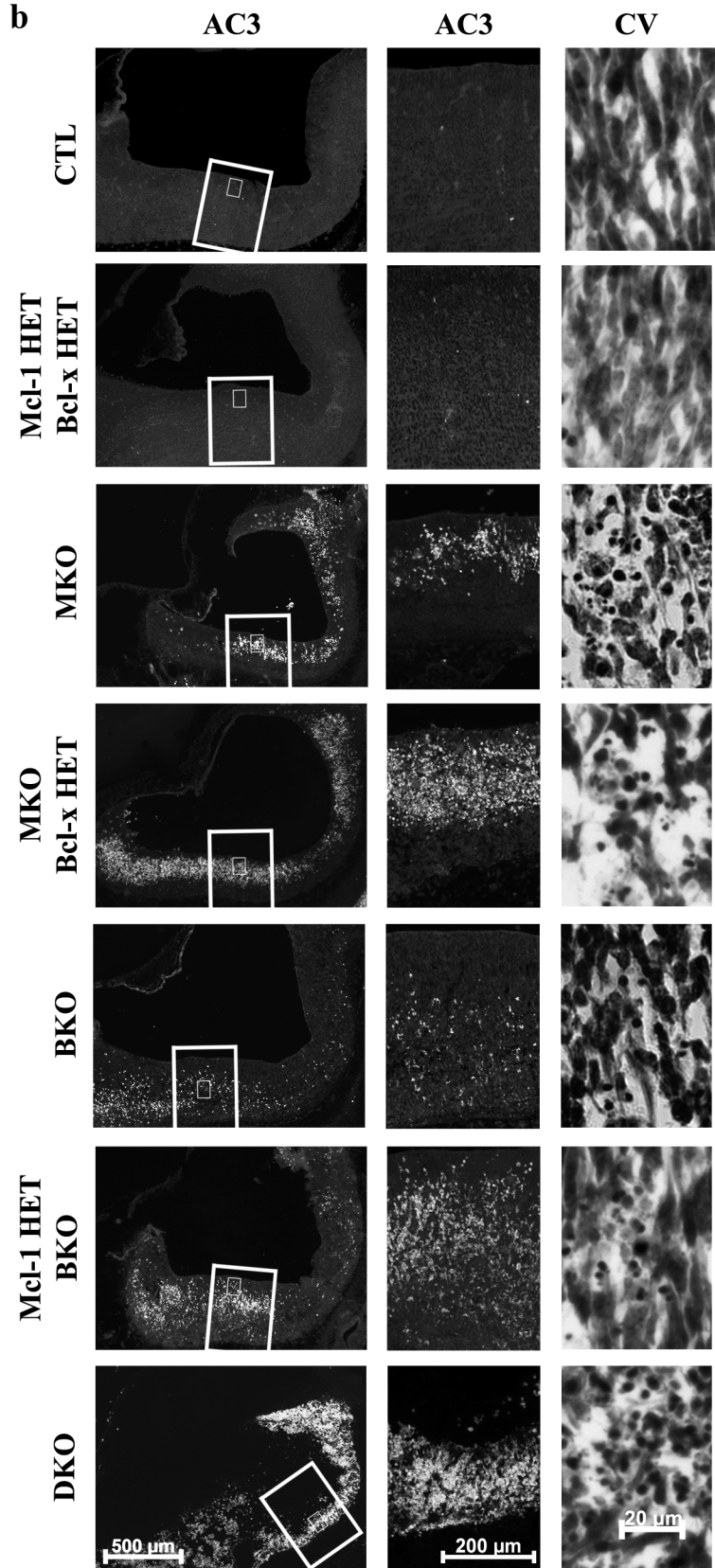
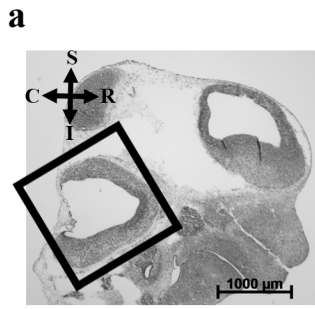
28 **and forebrain CTL, MKO and BKO embryos.** Western blots and analysis of Mcl-1 and Bcl-
29 xL protein expression in **(a, b, g, h)** spinal cord (Sp), **(c, d, i, j)** brainstem (Bs) and **(e, f, k, l)**
30 forebrain (Fb) tissue. Mcl-1 and Bcl-xL protein was examined in tissue collected from E12 Ctl,
31 Mcl-1 Het and MKO embryos **(a - f)** and from E12 Ctl, Bcl-x Het and BKO embryos **(g - l)**.

32 Representative blots of three separate experiments. Quantification of Mcl-1 and Bcl-xL protein is
33 relative to the expression of β -actin, the loading control in each tissue.

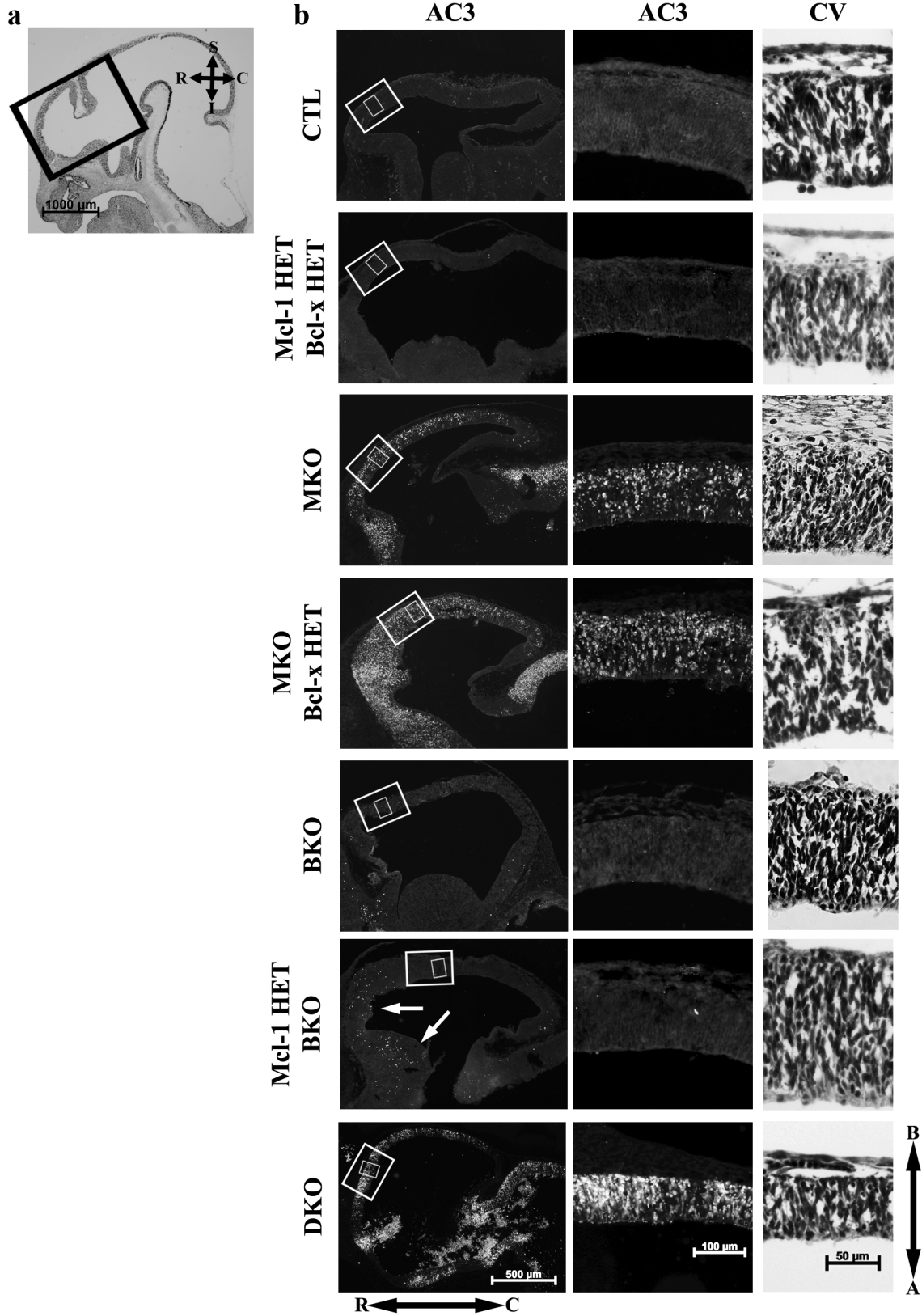
Fogarty_Suppl. Figure 1



Fogarty_Suppl. Figure 2



Fogarty_Suppl. Figure 3



Fogarty_Suppl. Figure 4

