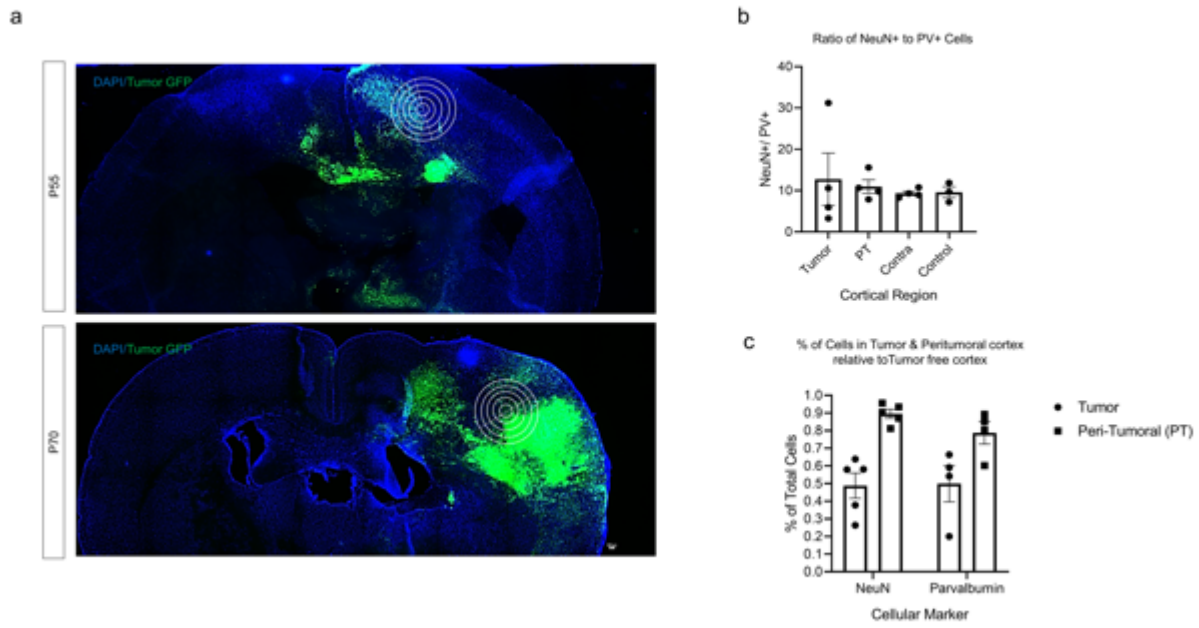
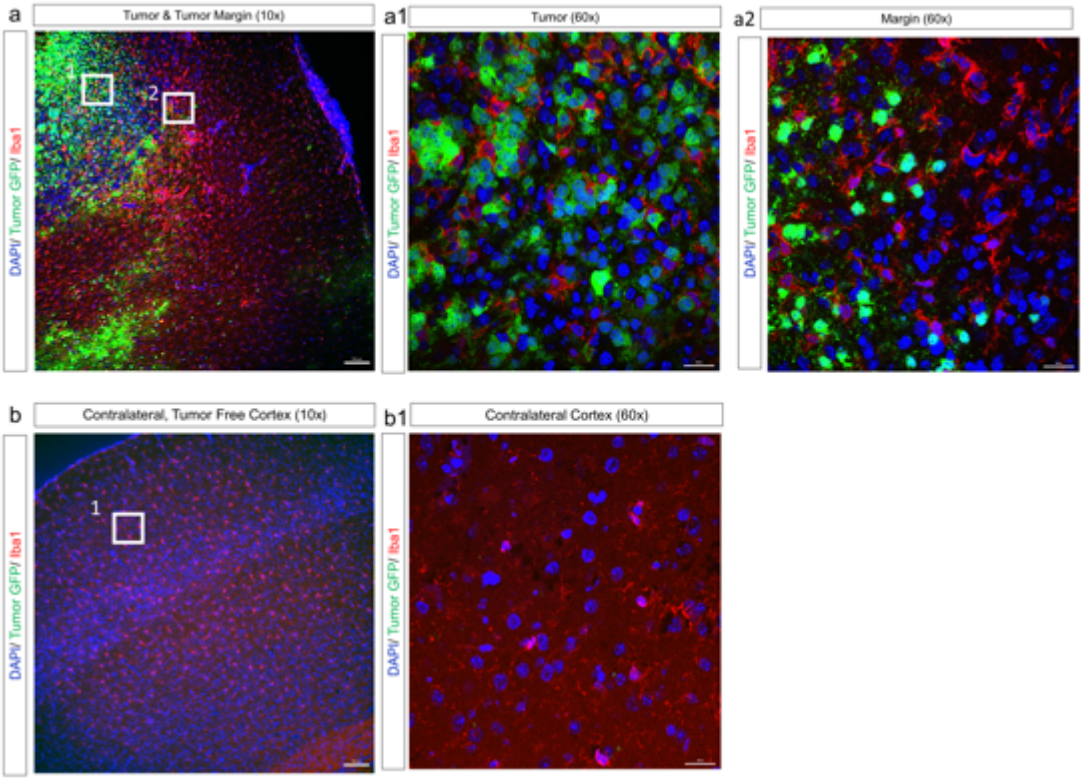
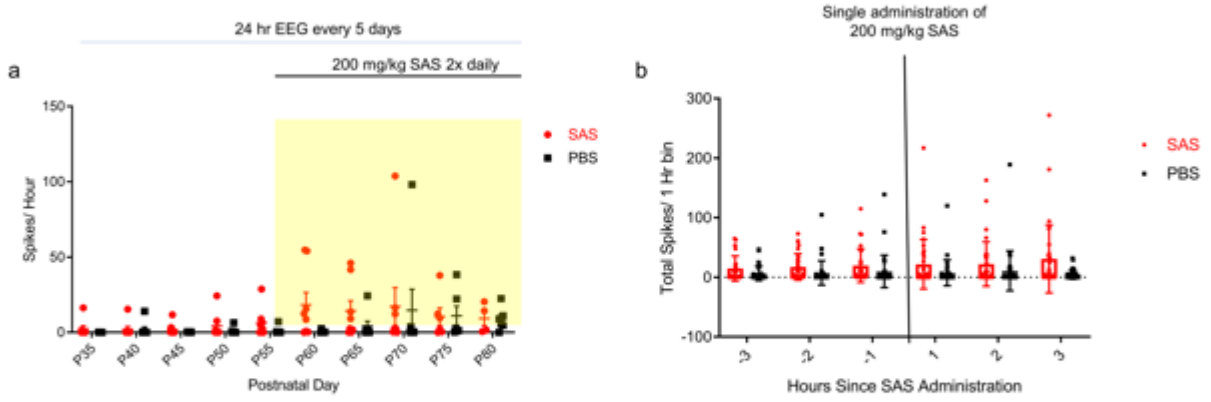


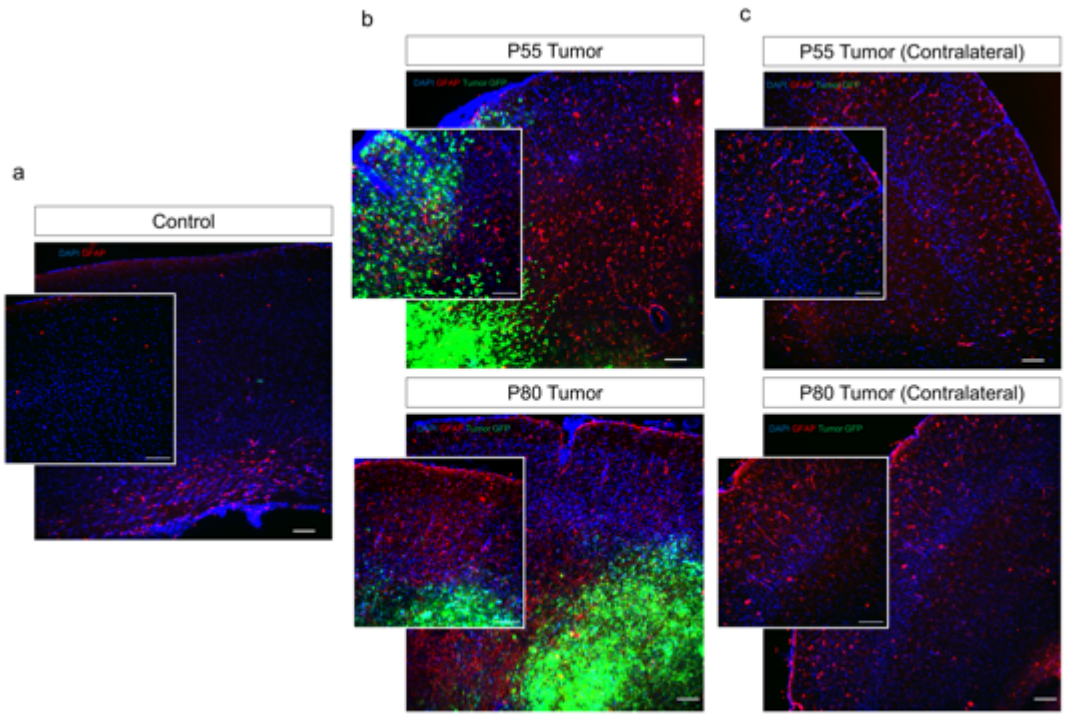
Supplementary Figure 1: (a) Full coronal section of a P55 (upper) and P70 tumor (lower) showing dense mass and satellite populations, as well as representative placements of 500uM (width per division) graticule (red) used to quantify cellular expression markers in tumor margin, and non-tumor regions (Larger view of image provided in figure 1b). **b,c:** Ratios of cellular expression are consistent across cortical region and between cellular markers. **b)** Ratio of NeuN+ to Parvalbumin+ cell average density is consistently 10:1 in tumor (Tumor), peritumoral (PT), contralateral tumor free cortex (Contra), and non-tumor controls (Control). **c)** Ratio of peritumoral/tumoral cells to cells in contralateral cortex. Cellular expression of both NeuN and Parvalbumin is reduced 50% in tumor burdened regions compared to contralateral cortex, and reduced by 10 and 20% in peri-tumoral regions compared to contralateral cortex.



Supplementary Figure 2. Morphology of activated microglia in regions of tumor burdened cortex. a) 10x bright field image of Iba1 expression in a region of tumor-burdened cortex in a P80 mouse showing altered microglial morphology indicative of microglial activation and increased proliferation. **(a1)** 60x confocal image of Iba1 expression in same tumor positive cortex shown in box 1. **(a2)** 60x confocal image of Iba1 expression at tumor margin shown in box 2. **b**) 10x bright field Image of Iba1 expression in a tumor free cortical region of the same mouse. **(b1)** 60x confocal image of Iba1 expression in contralateral tumor free cortex shown in box 1.



Supplementary Figure 3: **Continuous sulfasalazine treatment does not affect daily or hourly inter-ictal spike activity in tumor mice. (a)** Daily inter-ictal spike activity in mice treated with SAS from P55-P80 was not statistically different from that of PBS-treated controls**. b**) Inter-ictal spike activity was quantified hourly from 3 hours before until 3 hours after SAS or PBS treatment in a 24 hour recording session. Data is binned from P60, P65, P70, P75, and P80 recordings for both SAS and PBS treated tumor mice. Hourly spike activity was not statistically different from PBS-treated Controls. (**SAS n=7 PBS n=8)**.



Supplementary Figure 4: Tumor brain shows reactive astrocytosis. 10x images of GFAP staining with a 20x inlay of the same brain section show that **a**) control animals do not exhibit high levels of cortical GFAP, **b**) P55 and P80 tumor hemisphere exhibit robust peritumoral GFAP, and **c**) P55 and P80 contralateral hemisphere also exhibit elevated GFAP signal in cortex. Scale bars are 100 µm