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Supplementary information

cGAS–STING drives ageing-related inflammation and neurodegeneration

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cGAS/STING drives ageing-related inflammation and neurodegeneration

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Supplementary Information Guide

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Supplementary Fig. 1 l Source data for western blot analysis. Uncropped Western blot raw data. The molecular weight marker is indicated on the left (given in kDa). Boxes in dotted lines indicate cropped regions as presented in the figures and the extended data figures.

Supplementary Fig. 2 l Gating strategy used for microglia sorting. To enrich microglial cells, in addition to DAPI staining, nuclei were stained with anti-RBFOX3/NeuN-647 and anti-Olig2-488, and DAPI^{+}/NeuN^{-}/Olig2^{-} cells were sorted for analysis.

Supplementary Table 3 l Differentially expressed genes in the annotated Seurat cell clusters from single nuclei microglia. Statistical analysis: Differential expression was calculated using the MAST statistical framework.

Supplementary Table 4 | Differentially expressed genes between *Tmem119-creER^{T2}-cGAS$^{wt/wt}$* and *Tmem119-creER^{T2}-cGAS$^{wt/R241E}$* mice microglia in the annotated cell states.
Statistical analysis: Differential expression was calculated using the MAST statistical framework.

Supplementary Table 5 | Differentially expressed genes between *Tmem119-creER^{T2}-cGAS$^{wt/wt}$* and *Tmem119-creER^{T2}-cGAS$^{wt/R241E}$* mice microglia in the annotated cell types.
Statistical analysis: Differential expression was calculated using the MAST statistical framework.

Supplementary Table 6 | Gene lists used to define annotated cell states and cell types.
Gene sets from existing publications and the Human Protein Atlas single-cell data were used.

Supplementary Figure 1: Source data for western blot analysis. Uncropped Western blot raw data. The molecular weight marker is indicated on the left (given in kDa). Boxes in dotted lines indicate cropped regions as presented in the figures and the extended data figures.

Fig 2d

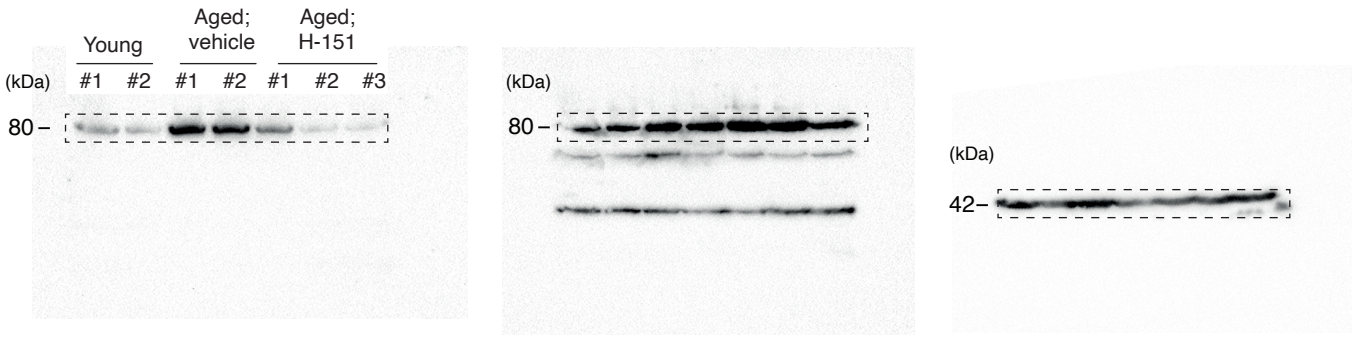


Fig Ext. 2d

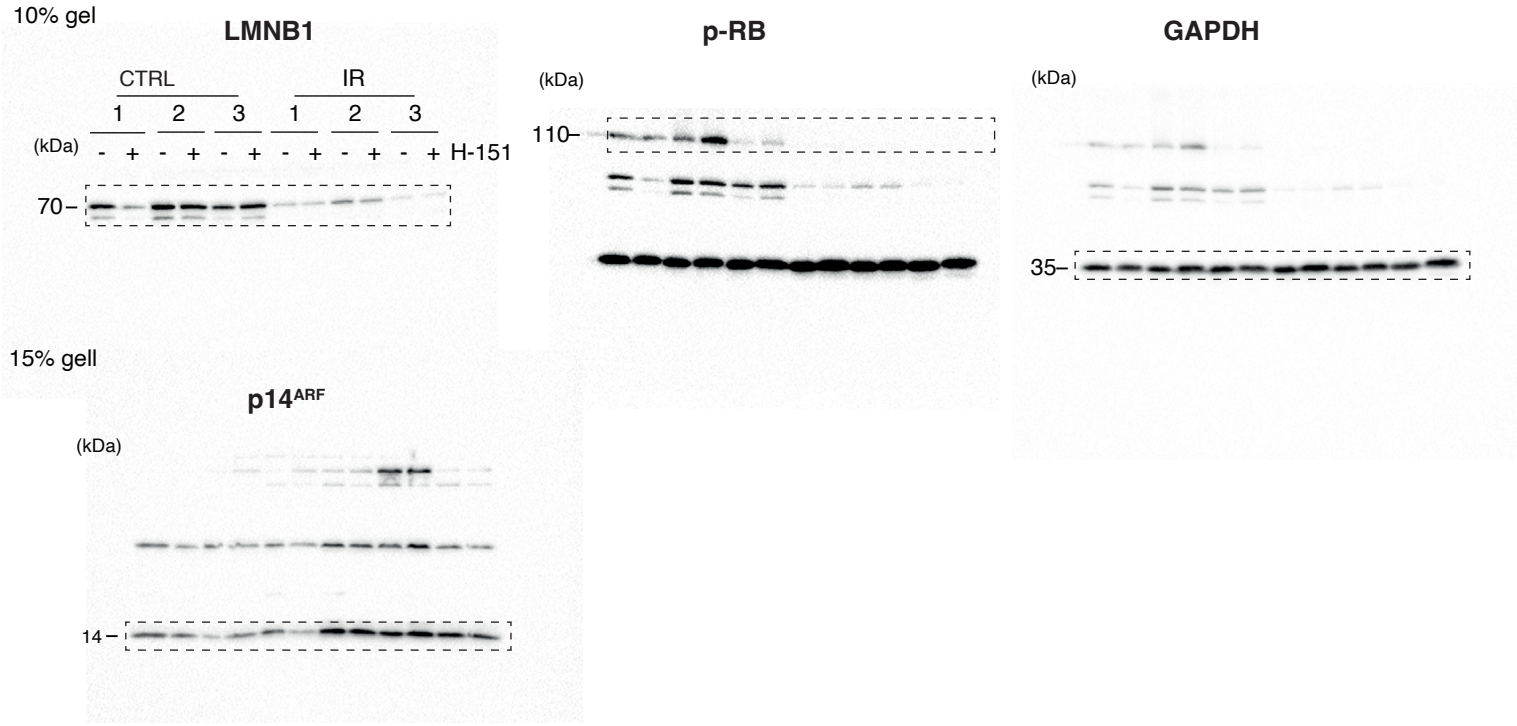


Fig Ext. 7b

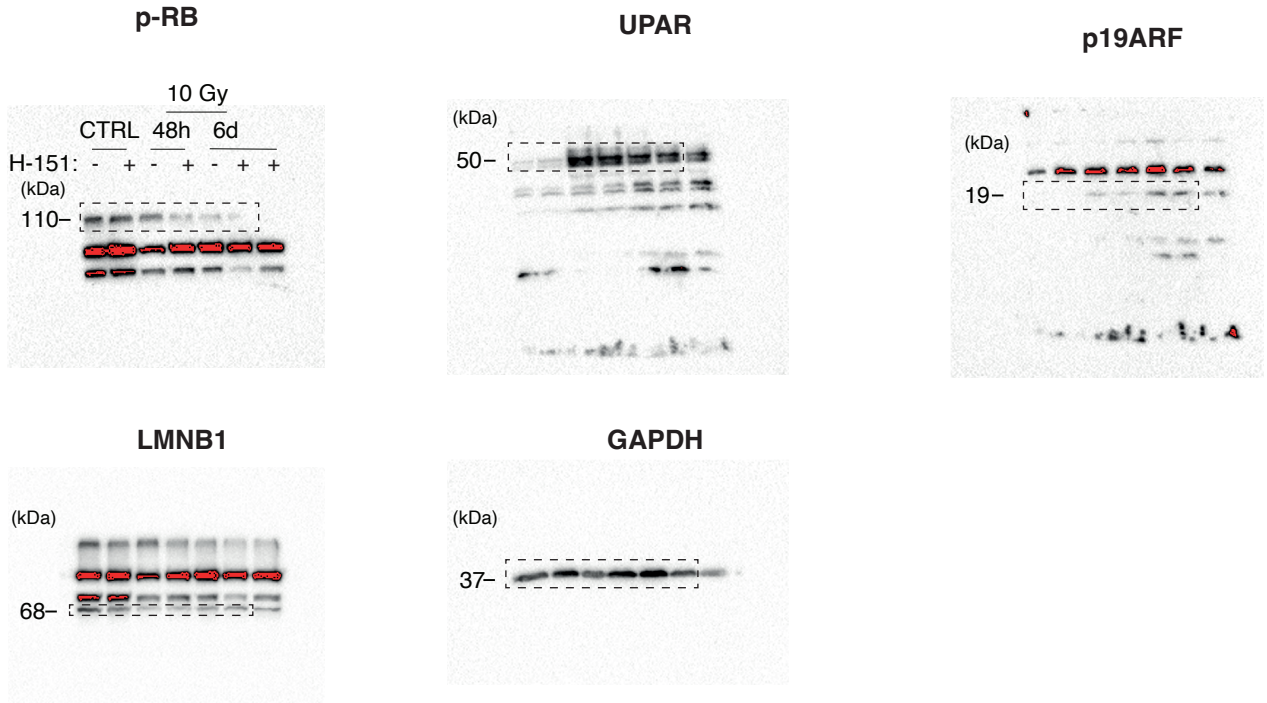
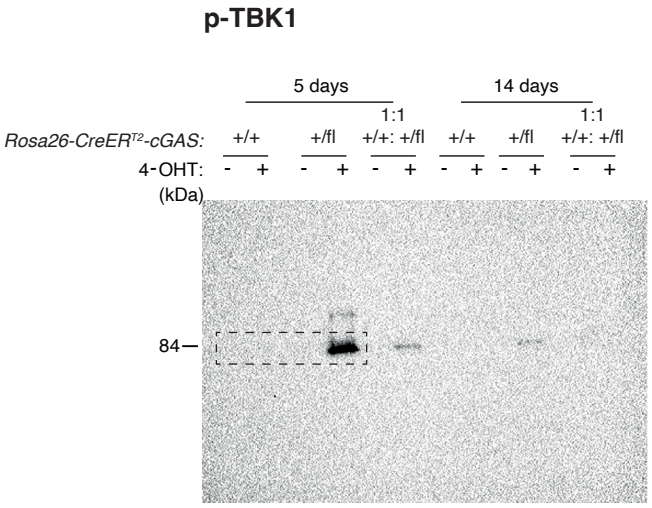
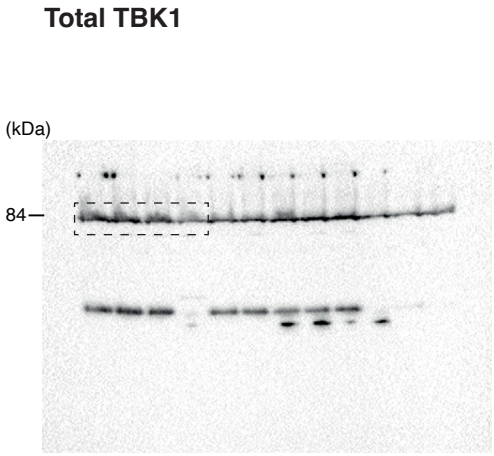


Fig Ext. 8b


p-TBK1
5 days
14 days
1:1
1:1
Rosa26-CreER^{T2}-cGAS:
+/+
+/fl
+/+: +/fl
+/+
+/fl
+/+: +/fl
4-OHT:
- + - + - + - + - + - +
(kDa)
84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(kDa)
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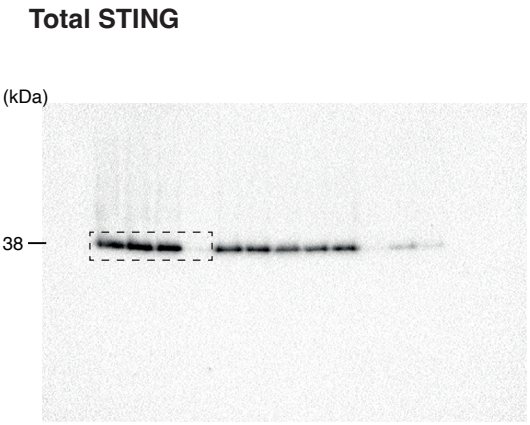
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(kDa)
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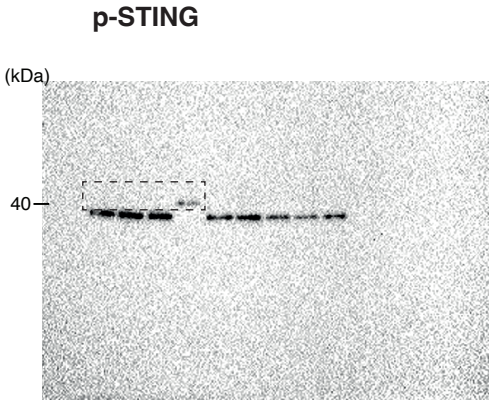
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(kDa)
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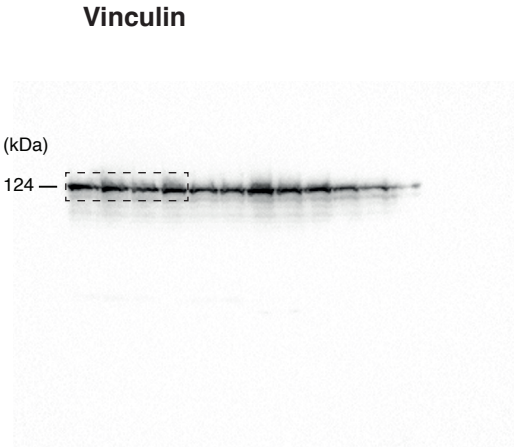
Vinculin
(kDa)
124

Supplementary Figure 2: Gating strategy used for microglia sorting. To enrich microglial cells, in addition to DAPI staining, nuclei were stained with anti-RBFOX3/NeuN-647 and anti-Olig2-488, and DAPI+/NeuN-/Olig2- cells were sorted for analysis.