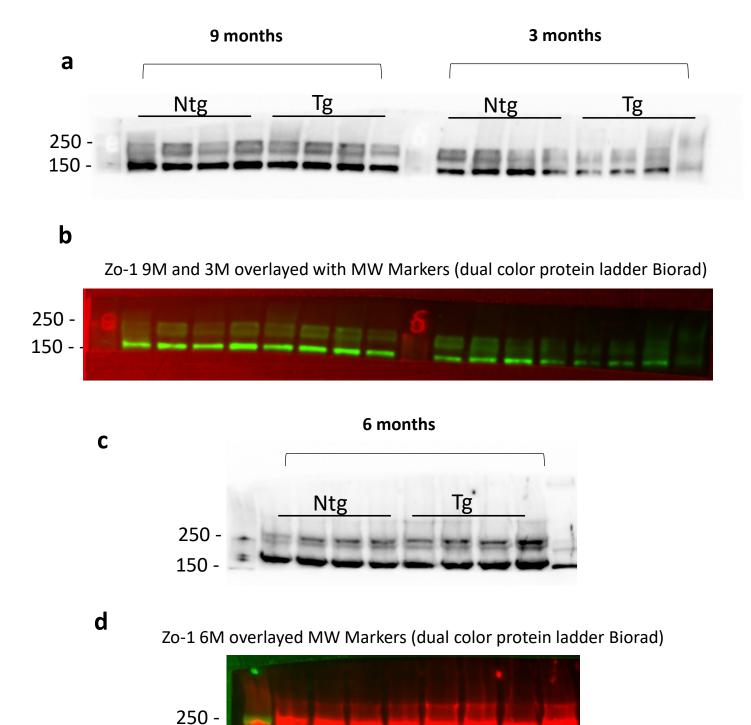


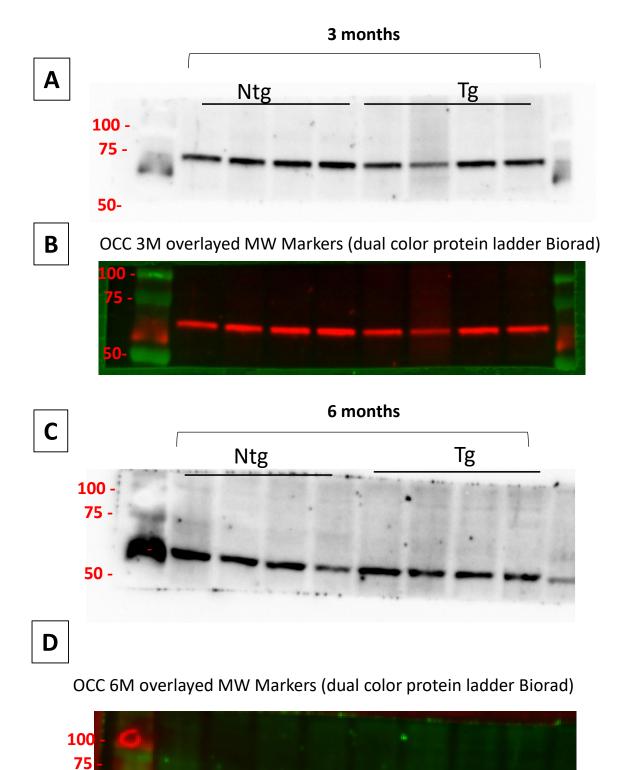
Supplementary Fig. 1 Enteric glial cells co-localize with TLR-2 in colonic tissue. Immunofluorescence staining of GFAP (enteric glial marker) and TLR-2 in colonic tissues from Tg and nTg animals at 3 months. Images were acquired with a Zeiss Apotome fluorescent microscope, with an objective 20x, scale bar  $=100 \ \mu m$ .

Abbreviations: GFAP, glial fibrillary acidic protein; nTg, non-transgenic; Tg, transgenic; TLR, toll like receptor.



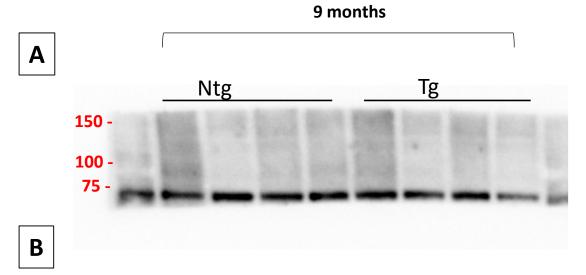
**Supplementary Fig. 2 Full length Western blots shown in Fig. 2.** Representative "uncropped" blots of zonulin-1 (ZO-1) expression assessed by Western blot assay in colonic tissues from nTg and Tg mice at 3 (**a**, **b**), 6 (**c**, **d**) and 9 (**a**, **b**) months of age. **b**, **d** Western blot overlap with MW markers.

150 -

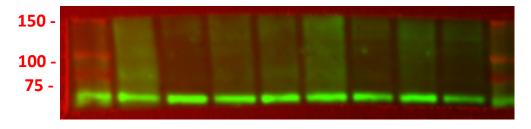


Representative "uncropped" blots of occludin (OCC) expression assessed by Western blot assay in colonic tissues from nTg and Tg mice at 3 (**A**, **B**) and 6 (**C**, **D**) months of age. (**B**, **D**) western blot overlap with MW markers.

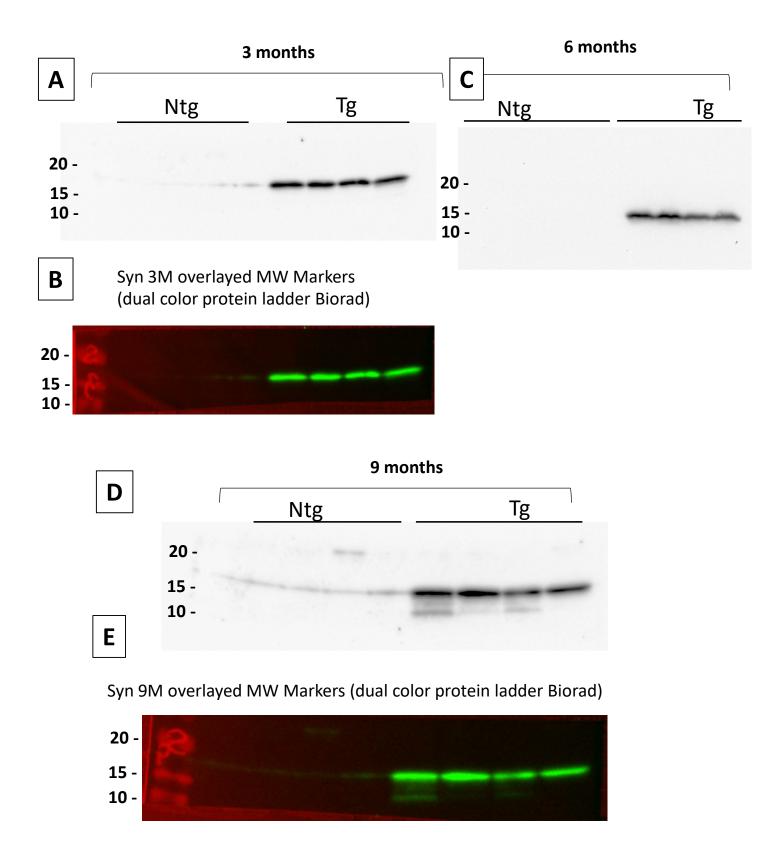
**50** 



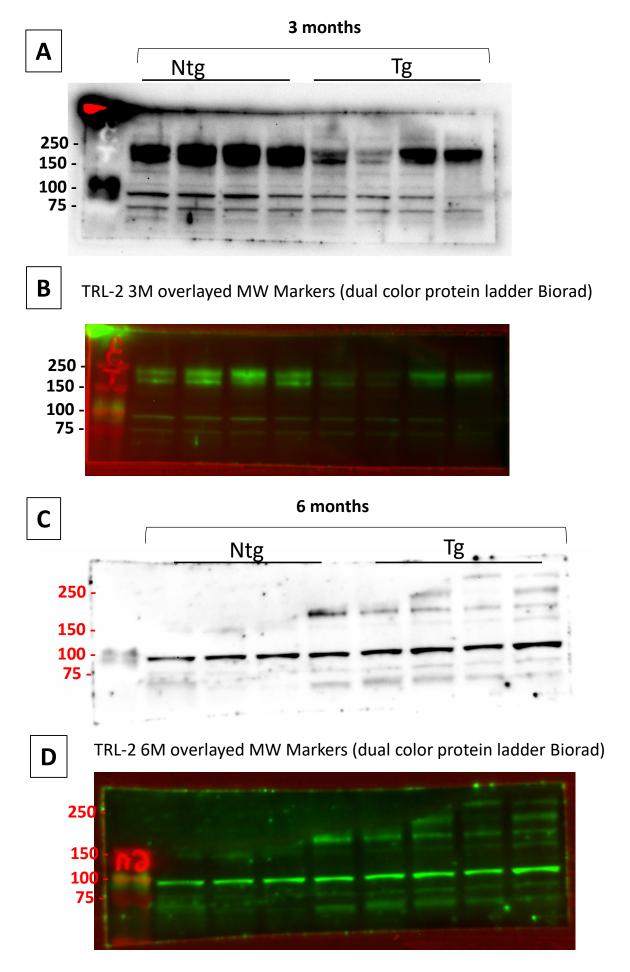
OCC 9M overlayed MW Markers (dual color protein ladder Biorad)



Representative "uncropped" blots of occludin (OCC) expression assessed by Western blot assay in colonic tissues from nTg and Tg mice at 9 months of age (**A**, **B**). (**B**) western blot overlap with MW markers.



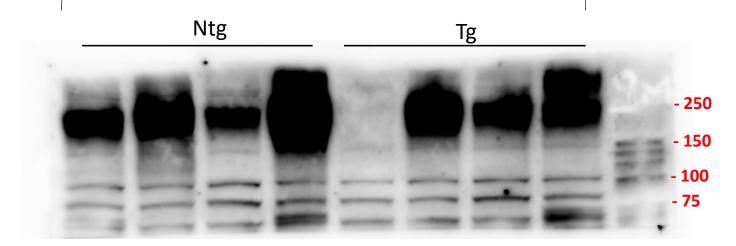
Representative "uncropped" blots of  $\alpha$ -synuclein ( $\alpha$ -syn) expression assessed by Western blot assay in colonic tissues from nTg and Tg mice at 3 (**A**, **B**), 6 (**C**) and 9 (**D**, **E**) months of age. (**B**, **E**) western blot overlap with MW markers.



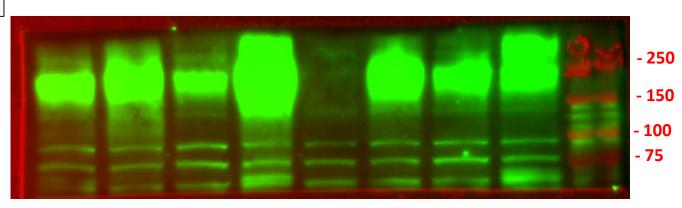
Representative "uncropped" blots of toll like receptor-2 (TLR-2) expression assessed by Western blot assay in colonic tissues from nTg and Tg mice at 3 (**A**, **B**) and 6 (**C**, **D**) months of age. (**B**, **D**) western blot overlap with MW markers.



В

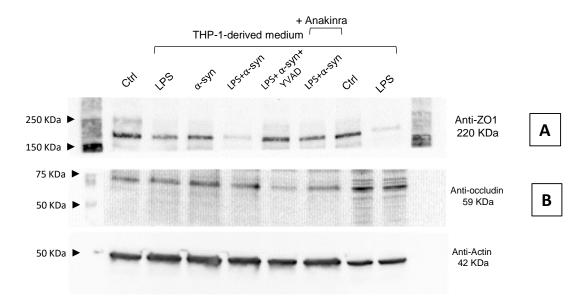


TRL-2 9M overlayed MW Markers (dual color protein ladder Biorad)

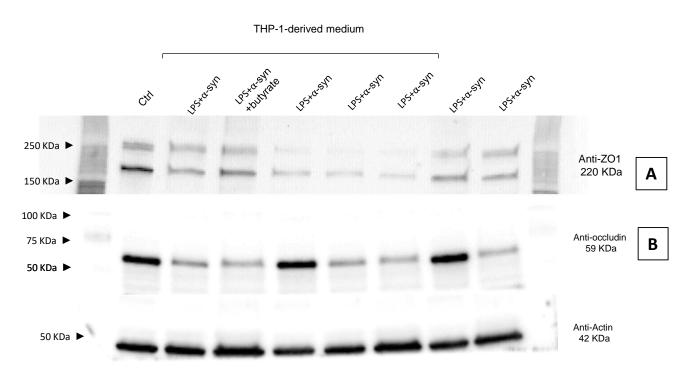


Representative "uncropped" blots of toll like receptor-2 (TLR-2) expression assessed by Western blot assay in colonic tissues from nTg and Tg mice at 9 (**A**, **B**) months of age. (**B**) western blot overlap with MW markers.

## Composite image for marker view



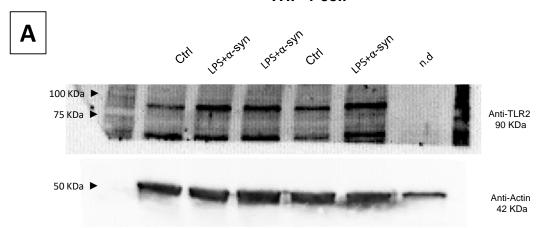
Representative "uncropped" blots of ZO-1 (A) and occludin (B) expression assessed by Western blot assay in cultured Caco-2 cells treated with conditioned medium derived from THP-1 cells. The membrane was cut for the detection of ZO-1, occludin and actin. These blots correspond to Figure 4B in the manuscript.



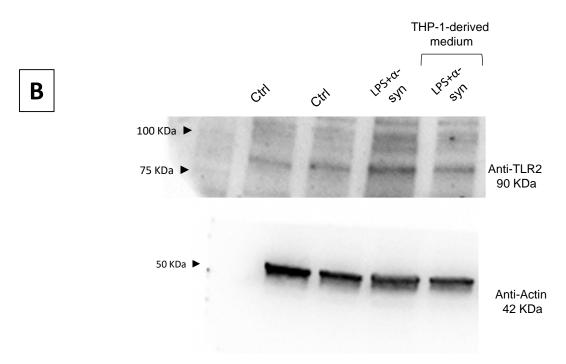
Representative "uncropped" blots of ZO-1 (**A**) and occludin (**B**) expression assessed by Western blot assay in cultured Caco-2 cells treated with conditioned medium derived from THP-1 cells treated with  $\alpha$ -syn plus LPS, in the absence or in the presence of butyrate, or with  $\alpha$ -syn plus LPS directly in the medium. The membrane was cut for the detection of ZO-1, occludin and actin. These blots correspond to Figure 5A e 5B in the manuscript

## Composite image for marker view





## Caco2 cell



Representative "uncropped" blots of TLR-2 expression assessed by Western blot assay in cultured THP-1 ( $\bf A$ ) and Caco-2 ( $\bf B$ ) cells treated with LPS and  $\alpha$ -syn and Caco-2 incubated with conditioned medium derived from THP-1 cells treated with  $\alpha$ -syn and LPS. These blots correspond to Figure 5C in the manuscript