TLR2/4 deficiency prevents oxygen-induced vascular degeneration and promotes revascularization by downregulating IL-17 in the retina

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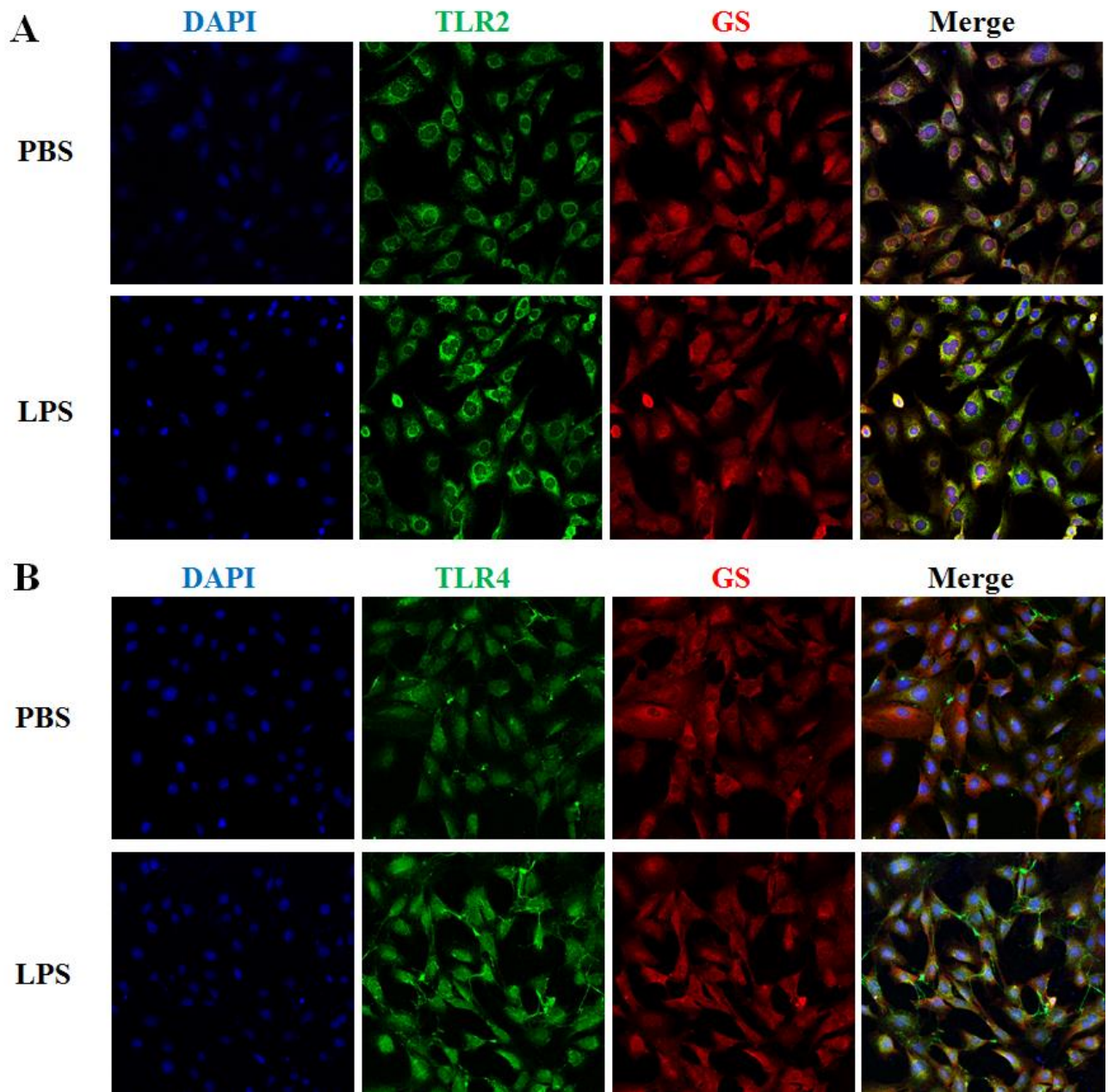
Supplementary information

Figure S1. TLR2 and TLR4 activation in response to LPS stimulation in retinal Müller cells.

A dose of 100 ng/mL LPS could significantly activate the TLR2 **(A)** and TLR4 **(B)** on cultured retinal Müller cells.

A Muller cells
DAPI | IL-17RA | GS | Merge

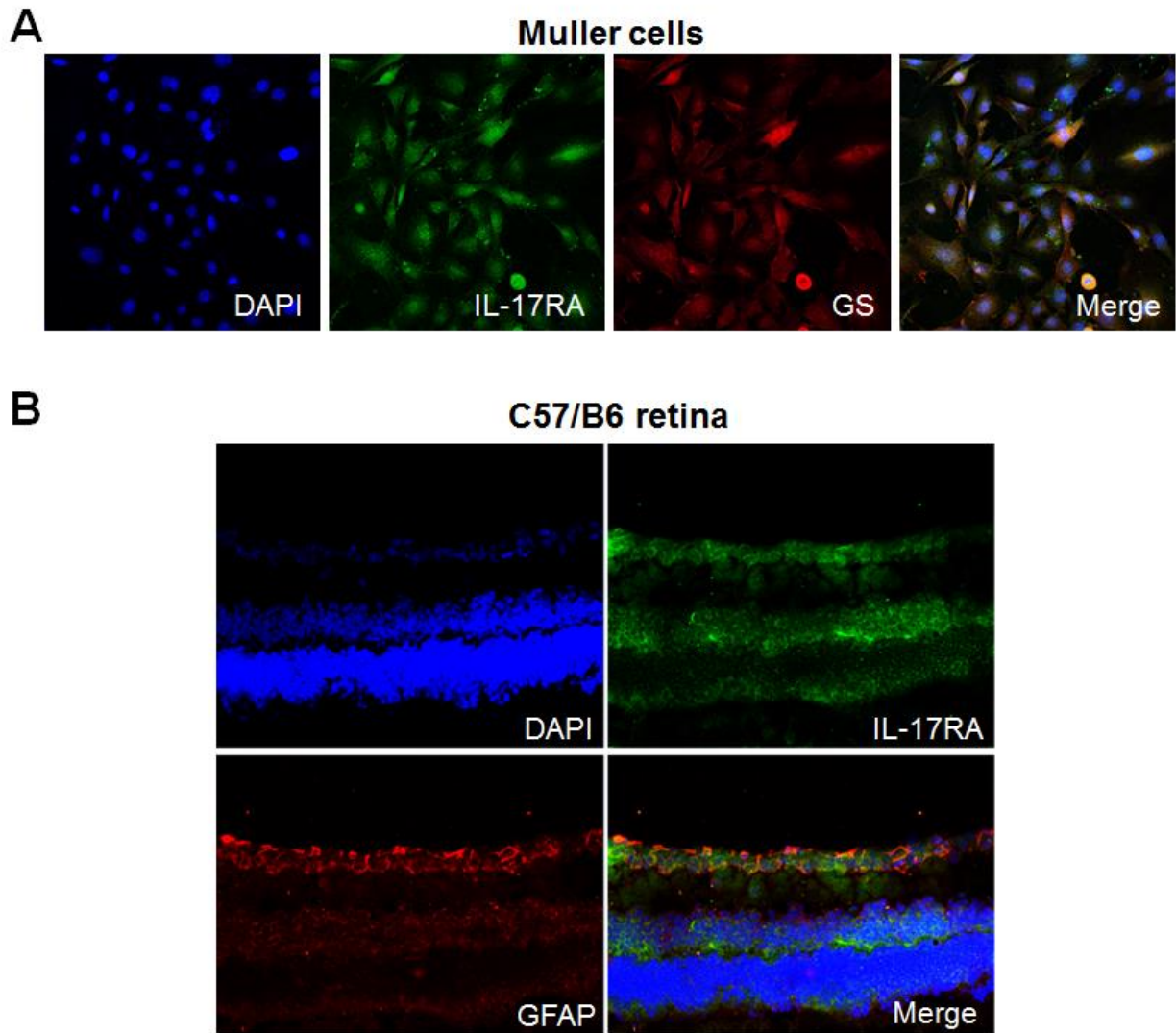**B** C57/B6 retina
DAPI | IL-17RA
GFAP | Merge

Figure S2. Receptor for IL-17A is abundantly expressed on retinal glia cells.

(A) The receptor for IL-17A (IL-17RA) is highly expressed in cultured Müller cells, which are identified by specific GS marker. (B) In C57/B6 mice, the IL-17RA is mainly distributed in GCL and INL in retina. Importantly, part of IL-17RA positive cells is co-staining with GFAP, glial cells activation marker in retina.
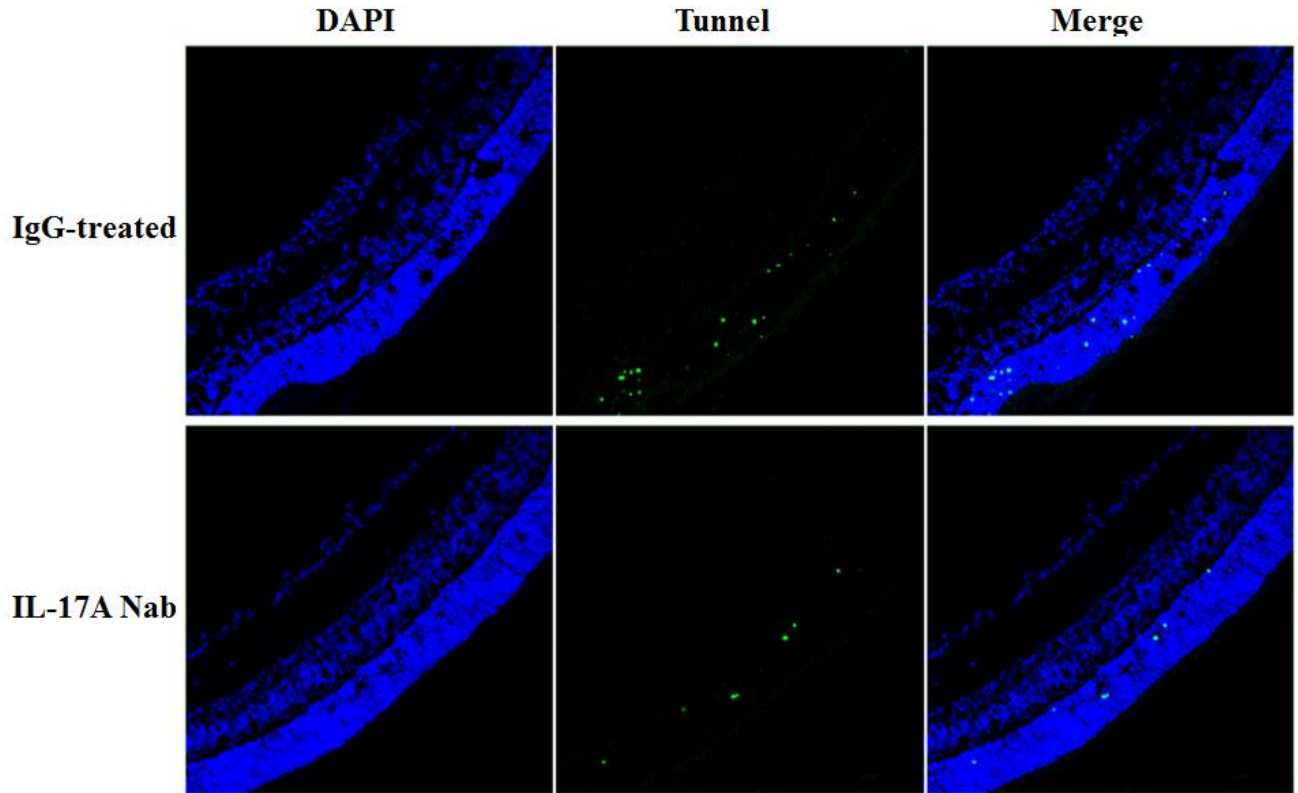
Figure S3. Low magnification images of Tunel staining after IL-17A blockade.

The confocal images under (200X) were captured to show larger field of retinal sections. IL-17A blockade using neutralizing antibody suppressed retinal cellular apoptosis, presented as less Tunel-positive cells in the OIR retina.

Table S1. Primers used for real-time PCR

Gene name	Orientation	Primer sequence (5' to 3')	Species
tgf-β	Forward	TGCACCCAAACCGAAGTCAT	Mouse
	Reverse	TTGTCAGAAGCCAGCGTTCAC	Mouse
il-6	Forward	CAAAGCCAGAGTCCTTCAGA	Mouse
	Reverse	GATGGTCTTGGTCCTTAGCC	Mouse
rorrt	Forward	CCGCTGAGAGGGCTTCAC	Mouse
	Reverse	TGCAG-GAGTAGGCCACATTACA	Mouse
il-10	Forward	CCCTTTGCTATGGTGTCCTT	Mouse
	Reverse	TGGTTTCTCTTCCCAAGACC	Mouse
il-17	Forward	GGTCAACCTCAAAGTCTTTAACTC	Mouse
	Reverse	TTAAAAATGCAAGTAAGTTTGCTG	Mouse
foxp3	Forward	CCCAGGAAAGACAGCAACCTT	Mouse
	Reverse	TTCTCACAACCAGGCCACTTG	Mouse
gapdh	Forward	TGAGCAAGAGAGGCCCTATC	Mouse
	Reverse	AGGCCCCTCCTGTTATTATG	Mouse