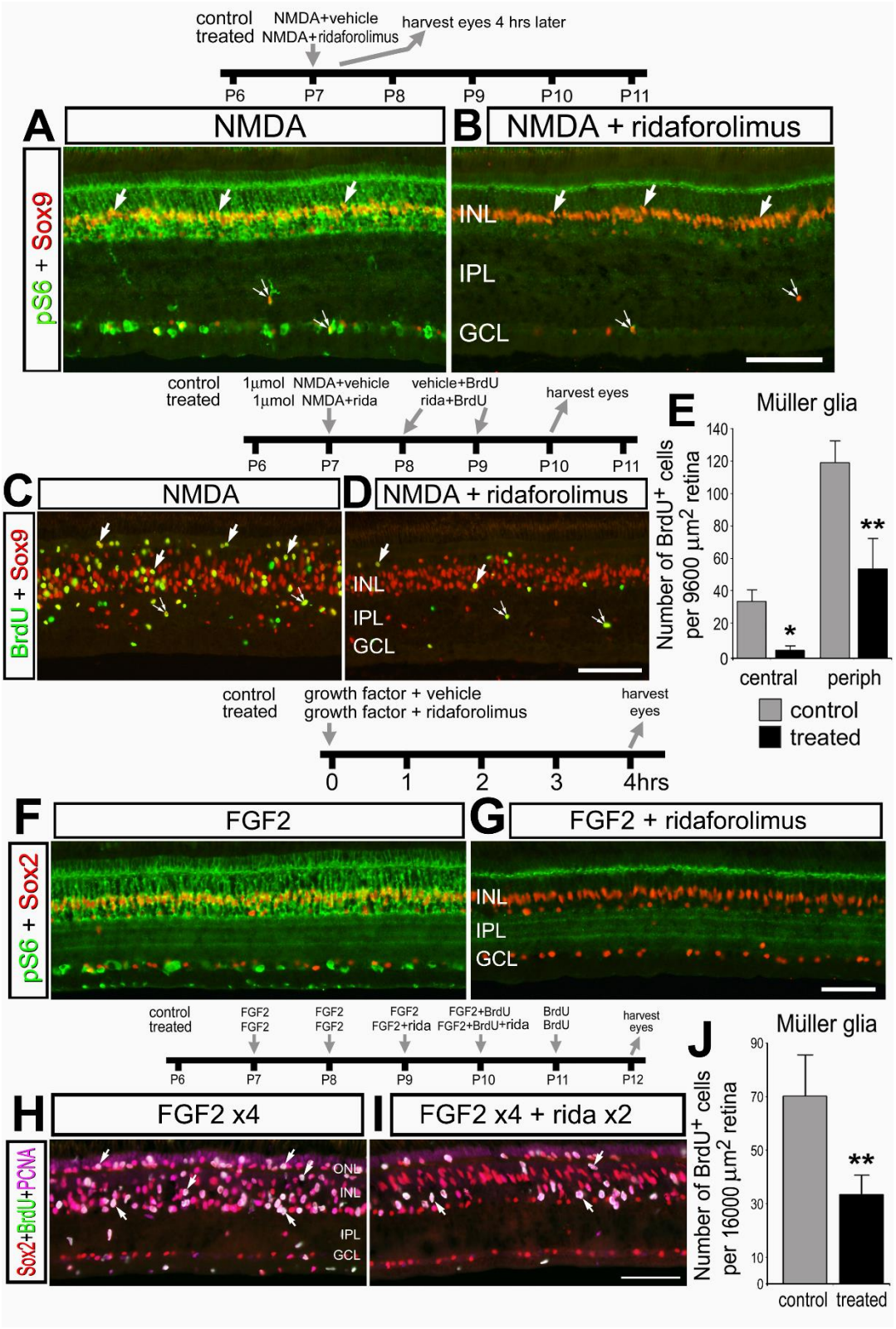


**Supplemental Figure 1.** Similar to the effects of rapamycin, the mTor-inhibitor ridaforolimus inhibits the induction of pS6 and the proliferation of MGPCs in NMDA-damaged and FGF2-treated retinas. The experimental paradigms are schematically

diagrammed above the relevant panels. Sections of the retina were labeled with antibodies to pS6 (green; A,B,F,G), Sox9 (red; A-D), BrdU (green; C, D, H, I), Sox2 (red; F-I), and PCNA (magenta; H, I). Arrows indicate the nuclei of Müller glia and/or MGPCs and small double-arrows indicate presumptive NIRG cells. Histograms in **E** and **J** illustrate the mean (±SD; n=4) number of proliferating Müller glia, NIRG cells and microglia in peripheral regions of control and treated retinas. Significance of difference (*p<0.05, **p<0.001) was determined by using an unpaired, two-tailed t-test. The calibration bar each panel represents 50 µm. ONL – outer nuclear layer, INL – inner nuclear layer, IPL – inner plexiform layer, GCL – ganglion cell layer.

**Supplemental table 1.** Antibodies, sources and working dilutions. Patterns of labeling and stimulus-dependent changes in levels of immunolabeling using these antibodies are consistent with previous reports (Fischer and Omar, 2005; Fischer et al., 2009a,b; Fischer et al., 2014; Todd and Fischer, 2015).

| **Antigen** | **Working dilution** | **Host** | **Clone or catalog number** | **Source** |
|---|---|---|---|---|
| pS6 | 1:400 | rabbit monoclonal | #5364 Ser240/244 | Cell Signaling |
| pS6 | 1:750 | rabbit | #2215; Ser240/244 | Cell Signaling |
| pAkt | 1:300 | rabbit | #4060 Ser473 | Cell Signaling |
| HuD/C | 1:100 | mouse | 16A11 | Invitrogen |
| Sox2 | 1:1000 | goat | Y-17 | Santa Cruz Immunochemicals |
| Brn3a (Pou4F1) | 1:200 | mouse | mab1585 | Chemicon |
| neurofilament | 1:50 | mouse | RT97 | Developmental Studies Hybridoma Bank (DSHB) Iowa City, IA |
| Transferrin binding protein (TFBP) | 1:5000 | rabbit | TFBP | Dr. J.J. Lucas, SUNY |
| Egr1 | 1:1000 | goat | AF2818 | R&D Systems |
| BrdU | 1:200 | rat | OBT00030S | AbD Serotec Raleigh, NC |
| BrdU | 1:100 | mouse | G3G4 | DSHB |
| PCNA | 1:1000 | mouse | M0879 | Dako Immunochemicals Carpinteria, CA |
| CD45 | 1:200 | mouse | HIS-C7 | Cedi Diagnostic |
| p38 MAPK | 1:400 | rabbit | 12F8 | Cell Signaling Technologies |
| $Top_{AP}$ | 1:100 | mouse | 2M6 | Dr. P. Linser University of Florida |
| Sox9 | 1:2000 | mouse | AB5535 | Chemicon |
| Nkx2.2 | 1:80 | mouse | 74.5A5 | DSHB |
| Pax6 | 1:50 | mouse | PAX6 | DSHB |
| Pax6 | 1:1000 | rabbit | PRB-278P | Covance |
| Klf4 | 1:50 | rabbit | ARP38430 | Aviva Systems Biology |

| | | | | |
|---|---|---|---|---|
| transitin | 1:80 | mouse | EAP3 | DSHB |
| pERK1/2 | 1:200 | rabbit | 137F5 | Cell Signaling Technologies |
| cFos | 1:400 | rabbit | K-25 | Santa Cruz Immunochemicals |
| pCREB | 1:500 | rabbit | 87G3 | Cell Signaling Technologies |

**Supplemental table 2:** Forward and reverse primer sequences (5' – 3') and predicted product sizes (in brackets).

| Gene name | Forward | Reverse | Product size (bp) |
|---|---|---|---|
| *notch1* | GGC TGG TTA TCA TGG AGT TA | CAT CCA CAT TGA TCT CAC AG | (154) |
| *hes5* | GGA GAA GGA GTT CCA GAG AC | AAT TGC AGA GCT TCT TTG AG | (143) |
| *ascl1a* | AGG GAA CCA CGT TTA TGC AG | TTA TAC AGG GCC TGG TGA GC | (187) |
| *c3aR* | CACT CGC ATA TGC CAA CAG C | GCC TTT GCT CTG AAG TCC CT | (73) |
| *c-myc* | ACA CAA CTA CGC TGC TCC TC | TTC GCC TCT TGT CGT TCT CC | (154) |
| *c3* | TCC CCC ATG AGG AAT GGG AT | ATA GTC CAT GTC CCC AGG CT | (74) |
| *gapdh* | CAT CCA AGG AGT GAG CCA AG | TGG AGG AAG AAA TTG GAG GA | (161) |