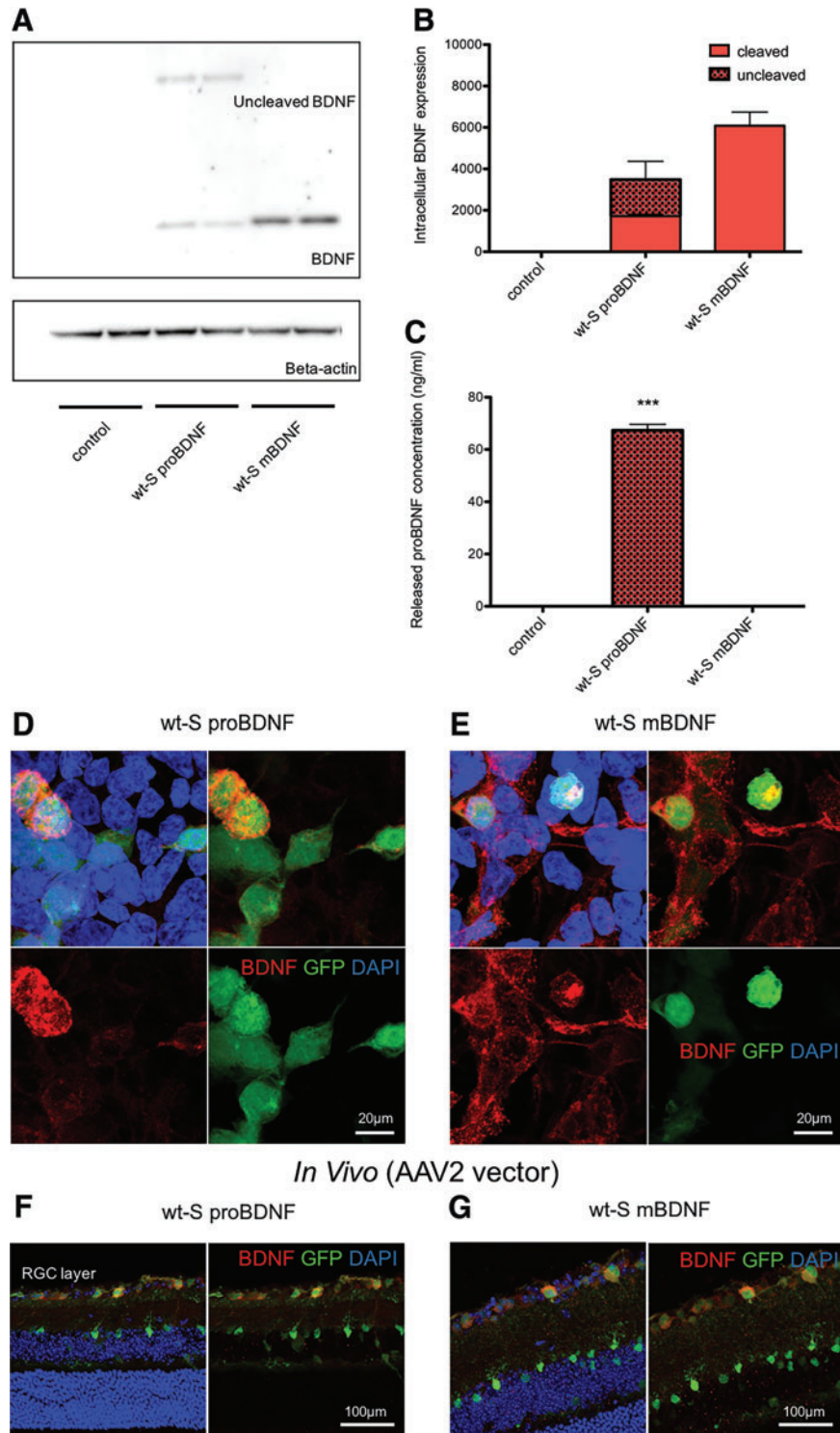


*In Vitro* (plasmid)



**Supplementary Figure S2.** Comparison of HEK293 cells transduced or mouse retina transfected with constructs expressing wild-type BDNF (wt-S proBDNF) or a construct absent of BDNF's pro-domain (wt-S mBDNF). **(A and B)** Protein expression for both cleaved (mature) and uncleaved (pro) BDNF could be detected in wt-S proBDNF, while uncleaved BDNF was absent in wt-S mBDNF 24 h after transduction in HEK293 cells ( $n=4$ ). **(C)** Secreted, uncleaved BDNF was only observed in wt-S proBDNF culture medium 24 h after transduction ( $n=4$ );  $***p < 0.001$  compared to controls. **(D and E)** Only transduced, GFP-positive, HEK293 cells produced BDNF with similar intracellular localization between constructs. **(F and G)** AAV2 vector transfected, GFP-positive, retinal cells expressed BDNF with greatest BDNF production in transfected retinal ganglion cell (RGC) layer neurons. AAV2 vectors were used at  $5.8 \times 10^9$  viral particles (vp)/eye. AAV, adeno-associated virus; GFP, green fluorescent protein.