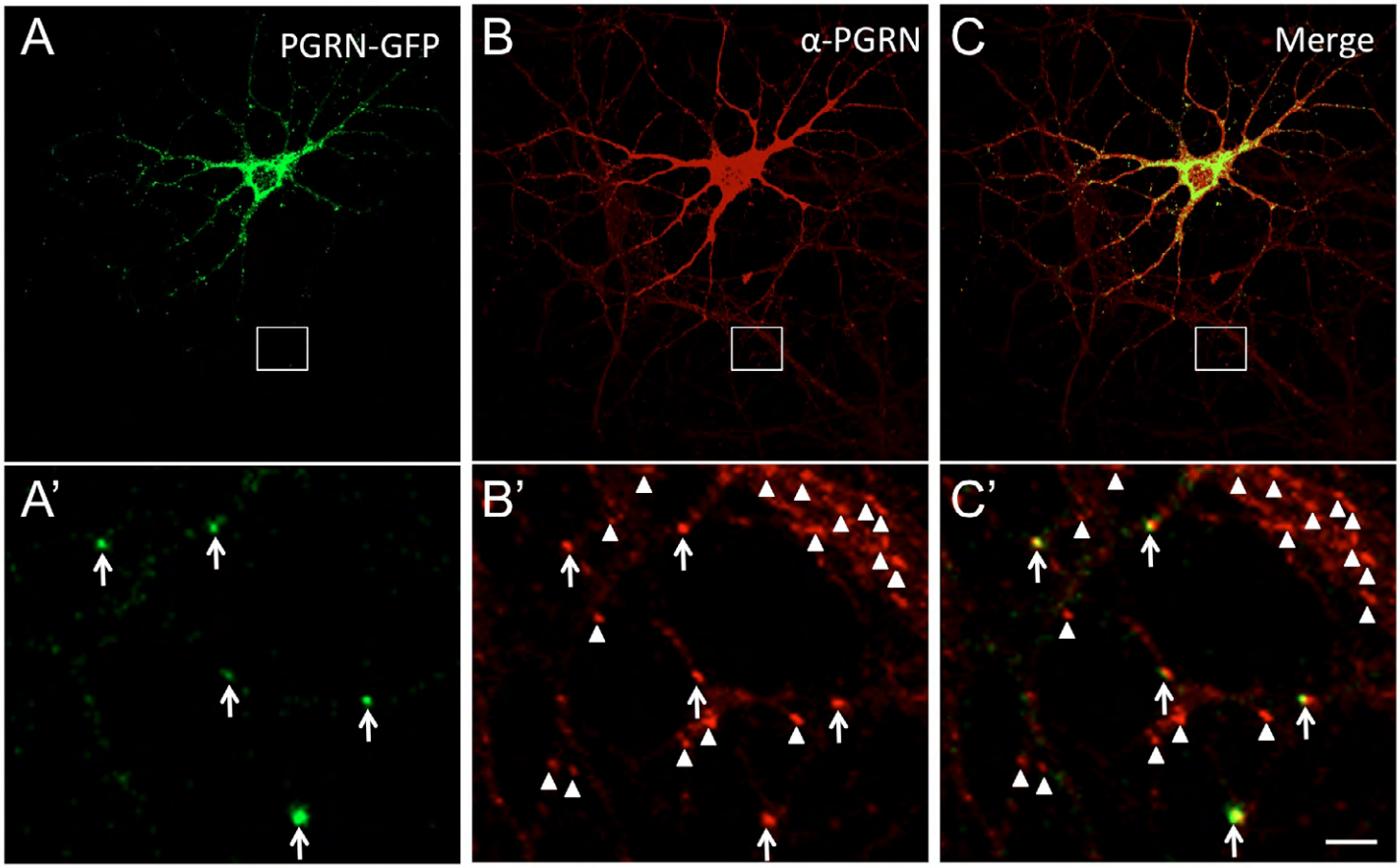

Fig. S1. Level of PGRN in PGRN-GFP-expressing cells. (A-C) Confocal images of 14 DIV hippocampal neurons transfected with PGRN-GFP and immunostained for PGRN. PGRN immunoreactivity is high in the cell body and proximal neurites in cells transfected with PGRN-GFP. Box in A-C demarcates higher magnification images of more distal neurites in A′-C′. Arrows denote PGRN-GFP puncta that are also immunostained with anti-PGRN. Arrowheads denote PGRN puncta in untransfected cells. Scale bar=20 μm (A-C) and 5 μm (A′-C′).

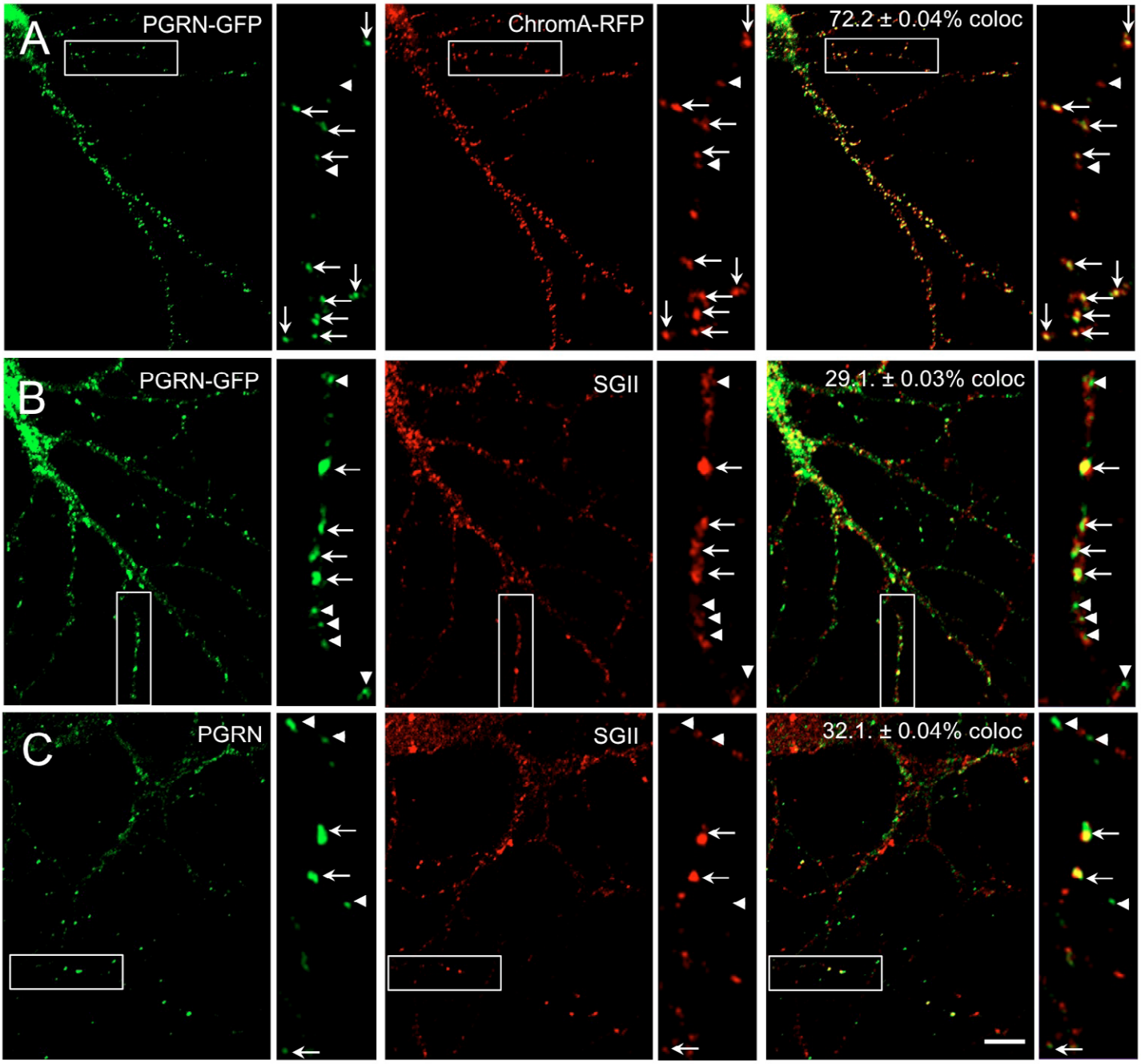

Fig. S2. PGRN colocalizes with the dense core vesicle cargo protein, Chromogranin A. Confocal images of 14 DIV hippocampal neurons expressing PGRN-RFP and ChromA-RFP (A), expressing PGRN-GFP and immunostained for secretogranin II (SGII) (B), or immunostained for both PGRN and SGII (C). Arrows denote colocalization and arrowheads points to PGRN or PGRN-GFP puncta that are not colocalized with DCV markers. The percent PGRN or PGRN-GFP puncta colocalized with DCV markers are shown in the merged images (n>5 cells per condition, 2 cultures). Scale bar=20 μm.

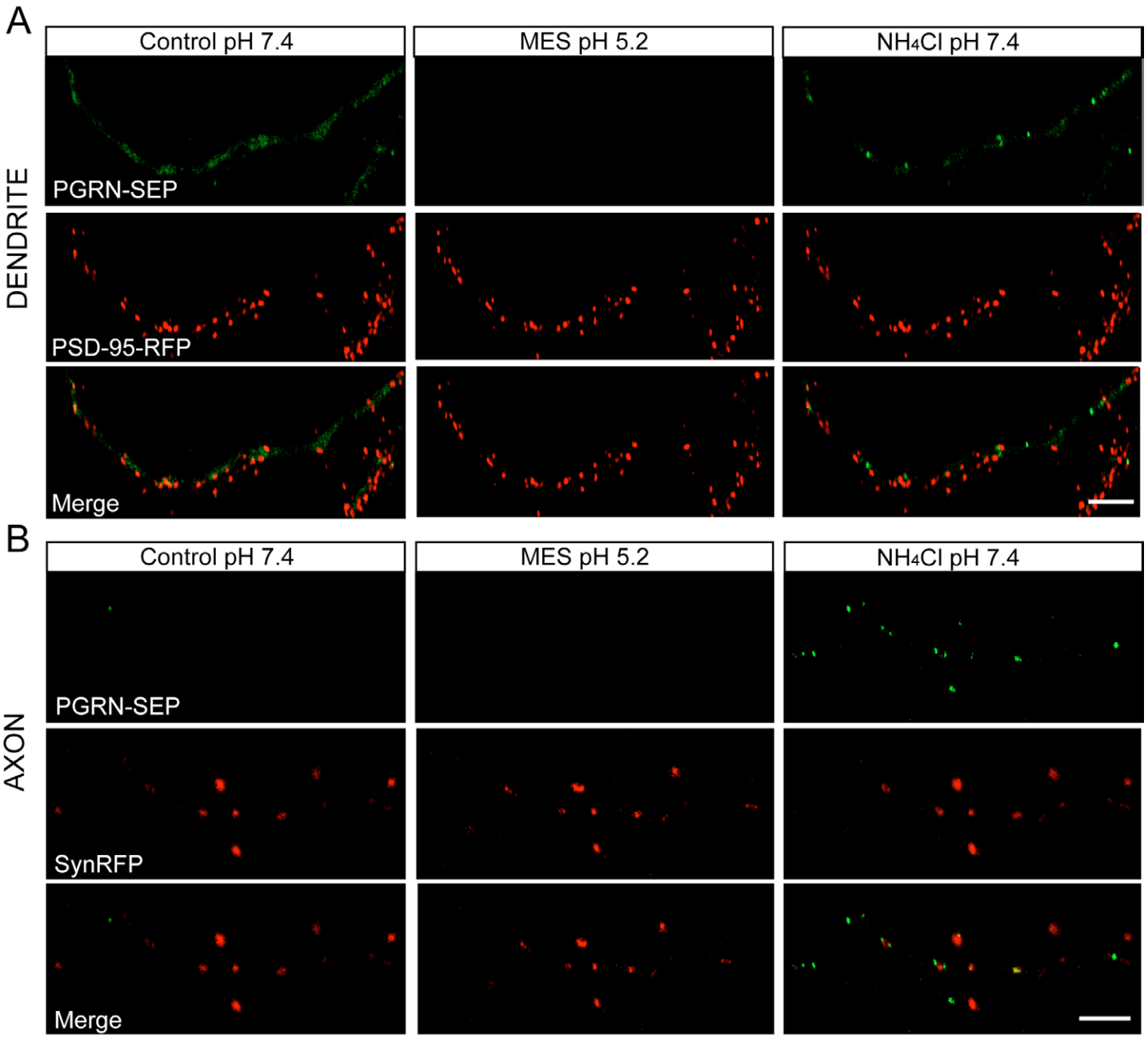

Fig. S3. Validation of PGRN-SEP. Confocal images of 14 DIV hippocampal neurons co-transfected with PGRN-SEP and PSD-95-RFP (A), or PGRN-SEP and synRFP (B). Treatment with NH_4Cl (pH 7.4) unquenches the SEP fluorescence and reveals PGRN-SEP within the dendrite and the axon (right panel). Treatment with MES (pH 5.2) quenches SEP fluorescence (middle panel). Scale bar=2 μm.