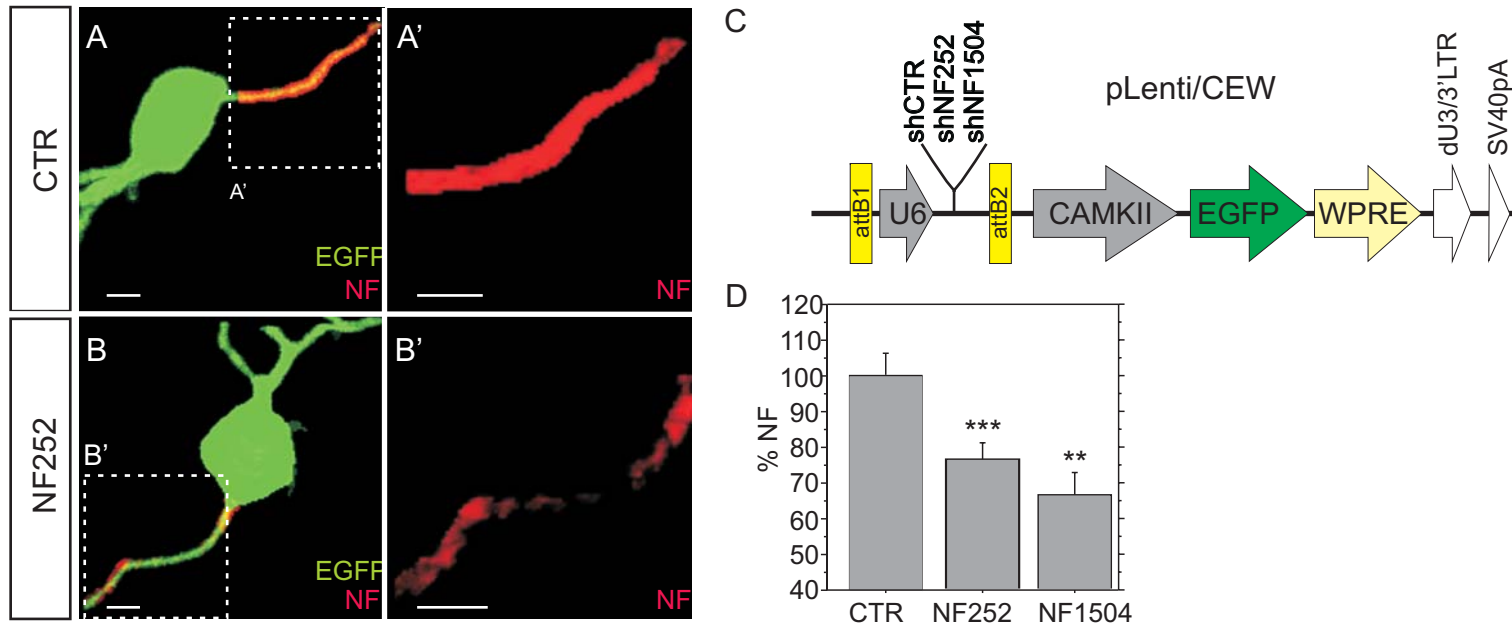


# Suppl. 2



Knockdown of Neurofascin-expression in hippocampal neurons. (A) EGFP-fluorescence and neurofascin (NF)-immunoreactivity of a control infected (CTR) hippocampal granule cell. (A') NF immunofluorescent signal on the AIS corresponding to the boxed region in (A). (B) EGFP-fluorescence and NF-immunoreactivity of a NF-knockdown (shNF252) infected hippocampal granule cell. (B') NF immunofluorescent signal on the AIS corresponding to the boxed region in (B). Scale bars: 5  $\mu$ m. (C) Expression cassette transferred to hippocampal neurons in vivo via lentiviral infection (attB1/B2: Gateway® attachment sites; U6: U6-promoter; shRNA: shRNA sequence; CAMKII: Ca<sup>2+</sup>/Calmodulin-dependent Protein Kinase II promoter; EGFP: Enhanced Green Fluorescent Protein; WPRE: Woodchuck hepatitis virus post-transcriptional regulatory element). (D) Quantification of NF-expression on AIS of infected (shCTR, shNF252, shNF1504) and not infected (n.i.) granule cells via quantitative immunohistochemistry. For proper comparison, each single histogram contains data obtained through analysis of neurons from the same animal.