

Supplementary 1. A: Changes in calcium ( $\Delta$  Citrine/CFP) over time in explants which received injury with Ab+NHS with the addition of either AK295 or DMSO vehicle control. No significant differences were observed between groups (two-way repeated measures ANOVA with Sidak's multiple comparisons test). B: Morphological changes at the MNTs in each experimental group at 60 min. \* = unaffected (p < 0.05), two-way ANOVA with Tukey's multiple comparisons test. n = 3 control, n = 4 Injury, n = 4 Injured+DMSO, n = 3 Injured+AK295. C. Illustrative images showing SMI-32 immunostaining for non-phosphorylated Nfil-H. A similar loss of staining is seen as with antibody for phosphorylated Nfil-H, in injured preparations with DMSO vehicle. In AK295-treated explants, SMI32 staining was protected.