

Title: Supplementary Movie 1.

Description: Representative video of WT RGC calcium imaging recordings.

Title: Supplementary Movie 2.

Description: Representative video of Nf1+/neo RGC calcium imaging recordings.

Title: Supplementary Movie 3.

Description: Representative video of Nf1+/1809 RGC calcium imaging recordings.

Title: Supplementary Movie 4.

Representative video of Nf1+/neo RGC calcium imaging recordings before TTX treatment.

Title: Supplementary Movie 5.

Description: Representative video of Nf1+/neo RGC calcium imaging recordings after TTX treatment.

Title: Supplementary Movie 6.

Representative video of Nf1+/neo RGC calcium imaging recordings before lamotrigine treatment.

Title: Supplementary Movie 7.

Description: Representative video of Nf1+/neo RGC calcium imaging recordings after lamotrigine treatment.

Title: Supplementary Movie 8.

Description: Representative video of Nf1+/neo RGC calcium imaging recordings before IN-1 treatment.

Title: Supplementary Movie 9.

Description: Representative video of Nf1+/neo RGC calcium imaging recordings after IN-1 treatment.

Title: Supplementary Movie 10.

Description: Representative video of WT DRG calcium imaging recordings.

Title: Supplementary Movie 11.

Description: Representative video of Nf1+/neo DRG calcium imaging recordings.

Title: Supplementary Movie 12.

Description: Representative video of Nf1+/1809 DRG calcium imaging recordings.

Title: Supplementary Movies 13.

Description: Representative video of Nf1+/neo DRG calcium imaging recordings before TTX and lamotrigine treatments.

Title: Supplementary Movie 14.

Description: Representative videos of Nf1+/neo DRG calcium imaging recordings after TTX treatment.

Title: Supplementary Movie 15.

Description: Representative videos of Nf1+/neo DRG calcium imaging recordings after lamotrigine treatment.

Title: Supplementary Movie 16.

Description: Representative video of Nf1+/neo DRG calcium imaging recordings before IN-1 treatment.

Title: Supplementary Movie 17.

Description: Representative video of Nf1+/neo DRG calcium imaging recordings after IN-1 treatment.