

YMTHE, Volume 26

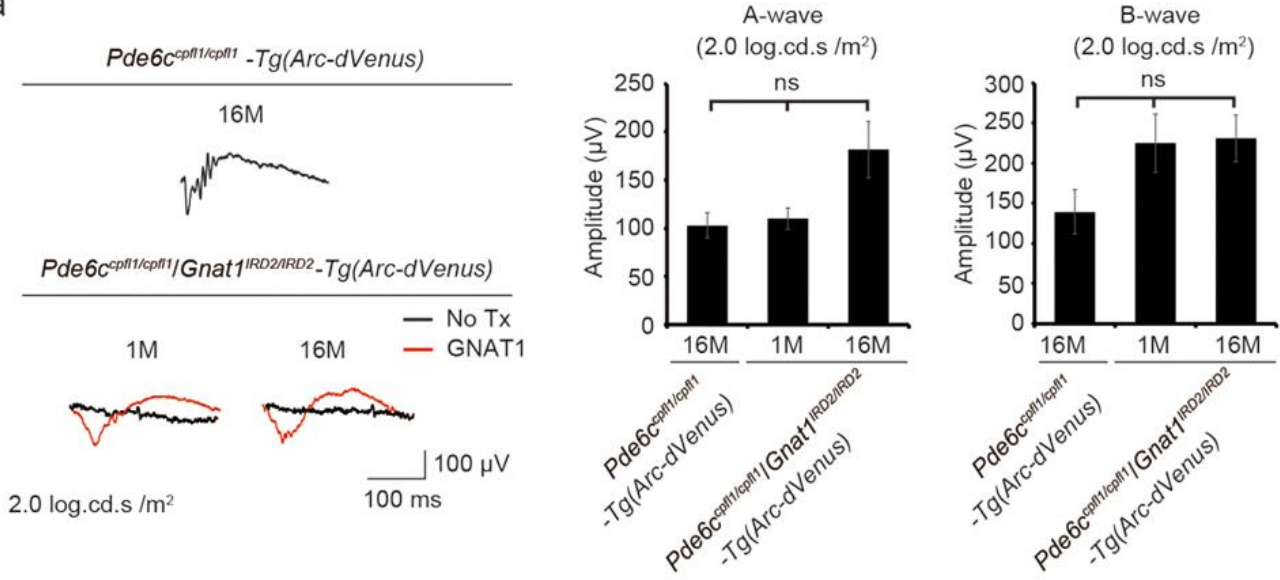
Supplemental Information

Retained Plasticity and Substantial Recovery of Rod-Mediated Visual Acuity at the Visual Cortex in Blind Adult Mice with Retinal Dystrophy

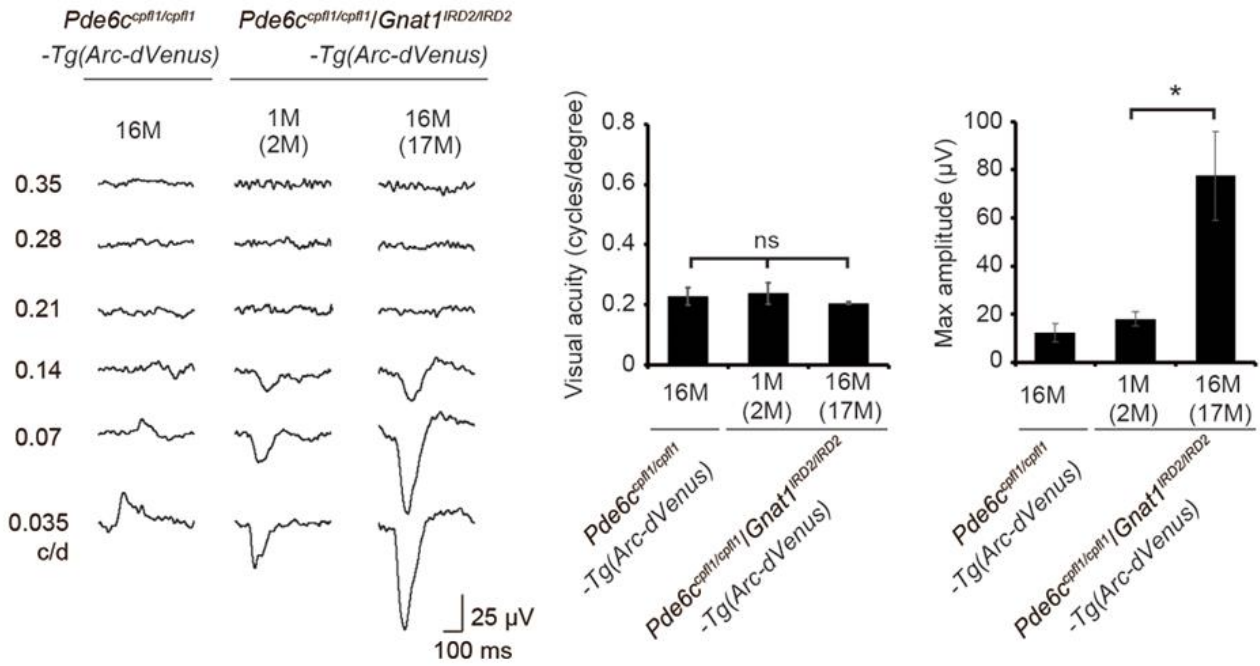
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Supplementary Materials

a



b



Supplementary Figure S1. Delayed treatment and increased pVEP amplitudes in

***Pde6c*^{cpfl1/cpfl1}*Gnat1*^{IRD2/IRD2}-*Tg(Arc-dVenus)* mice.**

- a. Similar functional restoration of the retina in

Pde6c^{cpfl1/cpfl1}*Gnat1*^{IRD2/IRD2}-*Tg(Arc-dVenus)* mice treated at 1 month and 16 months.

Notably, a-wave and b-wave amplitudes were not different between the two groups

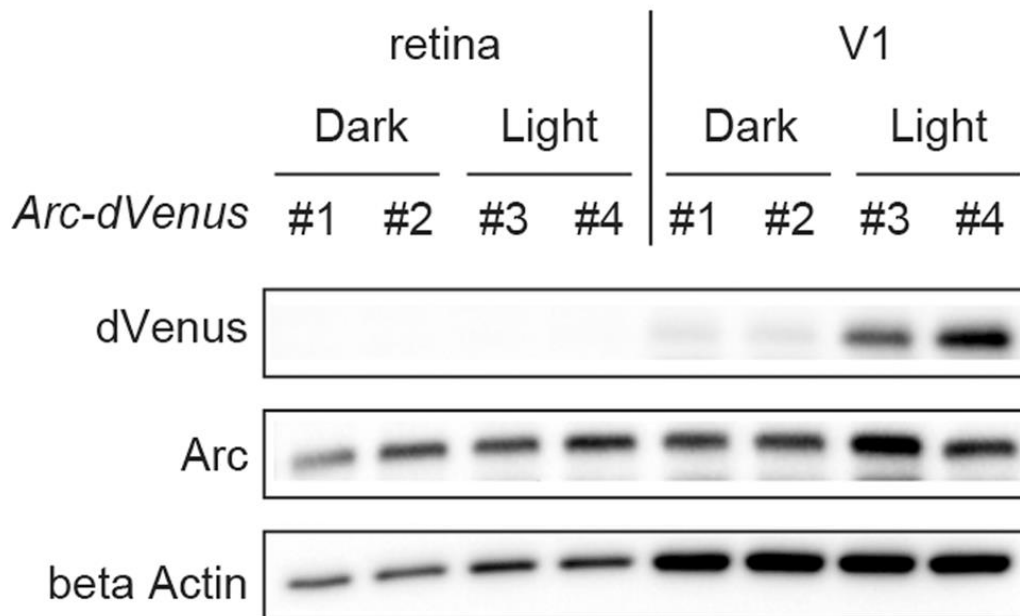
(N = 5 and 4 for 1 month and 9 months; ANOVA).

- b. pVEP revealed larger amplitudes in mice treated at 16 months (N = 4) compared

with those treated at 1 month (N = 5), which were larger than the untreated 16

month-old *Pde6c*^{cpfl1/cpfl1}*Gnat1*^{IRD2/IRD2}-*Tg(Arc-dVenus)* mice (right); however, visual

acuity was similar between these three groups ($P = 0.668$, ANOVA; left).



Supplementary Figure S2. High background expression of Arc protein in the dark.

Using *Tg(Arc-dVenus)* mice, we found that the Arc promoter-driven dVenus expression is different under dark (mice #1 and #2) and light (mice #3 and #4) conditions. Similarly, the light-induced upregulation of the endogenous Arc protein was detected in the V1, although the expression of endogenous Arc in the dark was high possibly due to the stabilization of the Arc protein in synapses under synaptically inactive conditions (Mabb et al., 2014).

Mabb AM, et al. (2014) Triad3A regulates synaptic strength by ubiquitination of Arc.

Neuron 82:1299-1316.