

Supplementary Materials

Materials and Methods

Sequence “*floxed-miniSTOP*” cassette - 393 bps

Sequence of *floxed-miniSTOP* (393 bps). For clarity corresponding regions of each sequence are highlighted in different colors: loxP, Adenovirus splice acceptor segment 1 and 2, SV40 poly(A).

AACTAGTGGATCCGGAACCCTTAATATAACTTCGTATAGCATAACATTATACGAAGTTATAAA
CCATGGTAGGGCGCAGTAGTCCAGGGTTTCCTTGATGATGTCATACTTATCCTGTCCCTTTTTT
TTCCACAGCTCGCGGTGAGGACAACTCTTCGCGGTCTTTCCAGTTAACTGATTAGGGCGCG
CCTTAATTAAACTTGTTTATTGCAGCTTATAATGGTTACAAATAAAGCAATAGCATCACAAA
TTTCACAAATAAAGCATTTTTTTCACTGCATTCTAGTTGTGGTTTGTCCAACTCATCAATGTA
TCTTATCATGTCTGGATCATAACTTCGTATAGCATAACATTATACGAAGTTATTAGGTCCCTCGA
CCTGCAGCCCAAG

Sequence “*ssODN*” - 653 bases

Sequence of Single-stranded oligo donor (653 bases). For clarity corresponding regions of each sequence are highlighted in different colors: 5' homologous (115 bases), *floxed-miniSTOP* (393 bases), 3' homologous (145 bases).

AACACCTCGCCCTCACTCAGACATCAGCTCCATCCCTTCCTGTACTTGGATACTGTCCTTGGC
AATGCCAGCTTCAGCAAGAAGCTGAGGGAGATAGAGGCCATGATCGCAGTCCAACTAGTGG
ATCCGGAACCCTTAATATAACTTCGTATAGCATAACATTATACGAAGTTATAAACCATGGTAG
GGCGCAGTAGTCCAGGGTTTCCTTGATGATGTCATACTTATCCTGTCCCTTTTTTTTCCACAGC
TCGCGGTGAGGACAACTCTTCGCGGTCTTTCCAGTTAACTGATTAGGGCGCGCCTTAATTA
AAACTTGTTTATTGCAGCTTATAATGGTTACAAATAAAGCAATAGCATCACAAATTTACAA
ATAAAGCATTTTTTTCACTGCATTCTAGTTGTGGTTTGTCCAACTCATCAATGTATCTTATCAT
GTCTGGATCATAACTTCGTATAGCATAACATTATACGAAGTTATTAGGTCCCTCGACCTGCAGC
CCAAGAAGAGGAAAAGATCTTCAGACTCAGAAGAATCATAAAATGATGAGGAGTCTCTAAG
CCAAGATGCTACACAAGGCACTCCATAGACACACGCACAAGCACTATAGCATCCATAGATC
TTGCACCTGGAGAGCCAATCAACCAGAT

Sequence “*floxed-STOP*” cassette - 2886 bps

Sequence of *floxed-STOP* cassette (2886 bps). For clarity corresponding regions of each sequence are highlighted in different colors: loxP, Splicing acceptors, SV40 poly(A).

CGCGGTCTTTCCAGTGGTTAATTAAATAACTTCGTATAGCATAACATTATACGAAGTTATGGCC
AGCCTAAGCTAGAGTTTGAATGTAGCCTATACAAGACCCTGTCTCAAAAACCAAGCAAAAGT
AAAACCCCAGGAACTGGGGGTTTGTATGCCTCTCCTGAACTAATTAATATCTATCTCCCCTT
CTTCATTTCTTAAAGGAAGAATTCCTGTCCCTTTTTTTTCCACAGAATTCACCGACTGTGGTG
AATGGAATGTATGTCCTTTCCAGAACCTGGTCCACTAAGATACATTGATGAGTTTGGACAAA
CCACAACCTAGAATGCAGTGAAAAAATGCTTTATTTGTGAAATTTGTGATGCTATTGCTTTAT

TTGTAACCATTATAAGCTGCAATAAACAAGTTTACCACATTTGTAGAGGTTTTACTTGCTTTAA
AAAACCTCCCACACCTCCCCCTGAACCTGAAACATAAAAATGAATGCAATTGTTGTTGTTGTA
AATATAAAATTTTTAAGTGTATAATGTGTTAAACTACTGATTCTAATTGTTTGTGTATTTTAGT
AAGATACATTGATGAGTTTGGACAAACCACAAGTGAATGCAGTGAAAAAAATGCTTTATTT
GTGAAATTTGTGATGCTATTGCTTTATTTGTAACCATTATAAGCTGCAATAAACAAGTTCTTAG
AGCTTTAAATCTCTGTAGGTAGTTTGTCCAATTATGTCACACCACAGAAGTAAGGTTCTTCA
CAAAGATCCCTCGACCAGACATGAGTAAATATAAAATTTTTAAGTGTATAATGTGTTAAACT
ACTGATTCTAATTGTTTGTGTATTTTAGTAAGATACATTGATGAGTTTGGACAAACCACAAGT
AGAATGCAGTGAAAAAAATGCTTTATTTGTGAAATTTGTGATGCTATTGCTTTATTTGTAACC
ATTATAAGCTGCAATAAACAAGTTCTTAGAGCTTTAAATCTCTGTAGGTAGTTTGTCCAATTA
TGTCACACCACAGAAGTAAGGTTCTTCAAAAGATCCCTCGACCAGACATGAGAAGTTCTT
ATTCTCTAGAAAGTATAGGAACTTCGGGTAGGGGAGGCGCTTTTCCCAAGGCAGTCTGGAGC
ATGCGCTTTAGCAGCCCCGCTGGGCACTTGGCGCTACACAAGTGGCCTCTGGCCTCGCACAC
ATTCCACATCCACCGGTAGGCGCCAACCGGCTCCGTTCTTTGGTGGCCCCCTTCGCGCCACCTT
CTACTCCTCCCCTAGTCAGGAAGTTCCCCCCCCGCCCCGCAGCTCGCGTCGTGCAGGACGTGA
CAAATGGAAGTAGCACGTCTCACTAGTCTCGTGCAGATGGACAGCACCGCTGAGCAATGGA
AGCGGGTAGGCCTTTGGGGCAGCGGCCAATAGCAGCTTTGCTCCTTCGCTTTCTGGGCTCAGA
GGCTGGGAAGGGGTGGGTCCGGGGGCGGGCTCAGGGGCGGGCTCAGGGGCGGGGCGGGCG
CCCGAAGGTCCTCCGGAGGCCCCGGCATTCTGCACGCTTCAAAGCGCACGTCTGCCGCGCTG
TTCTCCTCTTCTCATCTCCGGGCCTTTCGACCTGCAGCCTGTTGACAATTAATCATCGGCATA
GTATATCGGCATAGTATAATACGACAAGGTGAGGAACTAAACCATGGGATCGGCCATTGAA
CAAGATGGATTGCACGCAGGTTCTCCGGCCGCTTGGGTGGAGAGGCTATTCGGCTATGACTG
GGCACAACAGACAATCGGCTGCTCTGATGCCGCCGTGTTCCGGCTGTCAGCGCAGGGGCGCC
CGGTTCTTTTTGTCAAGACCGACCTGTCCGGTGCCCTGAATGAACTGCAGGACGAGGCAGCG
CGGCTATCGTGGCTGGCCACGACGGGCGTTTCTTGCGCAGCTGTGCTCGACGTTGTCACTGAA
GCGGGAAGGGACTGGCTGCTATTGGGCGAAGTGCCGGGGCAGGATCTCCTGTCATCTCACCT
TGCTCCTGCCGAGAAAGTATCCATCATGGCTGATGCAATGCGGCGGCTGCATACGCTTGATC
CGGCTACCTGCCCATTCGACCACCAAGCGAAACATCGCATCGAGCGAGCACGTACTCGGAT
GGAAGCCGGTCTTGTGATCAGGATGATCTGGACGAAGAGCATCAGGGGCTCGCGCCAGCC
GAACTGTTCCGCCAGGCTCAAGGCGCGCATGCCCCACGGCGATGATCTCGTCGTGACCCATGG
CGATGCCTGCTTGCCGAATATCATGGTGGAATGGCCGCTTTTCTGGATTCATCGACTGTGG
CCGGCTGGGTGTGGCGGACCGCTATCAGGACATAGCGTTGGCTACCCGTGATATTGCTGAAG
AGCTTGGCGGCGAATGGGCTGACCGCTTCCTCGTGCTTTACGGTATCGCCGCTCCCGATTTCG
AGCGCATCGCCTTCTATCGCCTTCTTGACGAGTTCTTCTGAGGGGATCAATTCTCTAGAGCTC
GCTGATCAGCCTCGACTGTGCCTTCTAGTTGCCAGCCATCTGTTGTTTGCCCCCTCCCCCGTGCC
TTCCTTGACCCTGGAAGGTGCCACTCCCCTGTCCTTTCTAATAAAAATGAGGAAATTGCATC
GCATTGTCTGAGTAGGTGTCATTCTATTCTGGGGGGTGGGGTGGGGCAGGACAGCAAGGGGG
AGGATTGGGAAGACAATAGCAGGCATGCTGGGGATGCGGTGGGCTCTATGGCTTCTGAGGC
GGAAAGAACCAGCTGGGGCTCGACTAGAGCTTGCGGAACCCTTCGAAGTTCCTATTCTCTAG
AAAGTATAGGAACTTCATAACTTCGTATAGCATAACATTATACGAAGTTATGGTACCGCGAGA
CCCACGCTCACCGGC

Figure S1. Electroretinography of three founder mice from *Easi*-CRISPR.

Photopic serial intensity ERG showed decreased *b*-wave amplitudes in #6 founder mouse (homozygous-like knock-in) compared to #2 (heterozygous-like knock-in) and #3 (no knock-in) founder mice. PCR results of these founder mice were showed in Figure 2C.

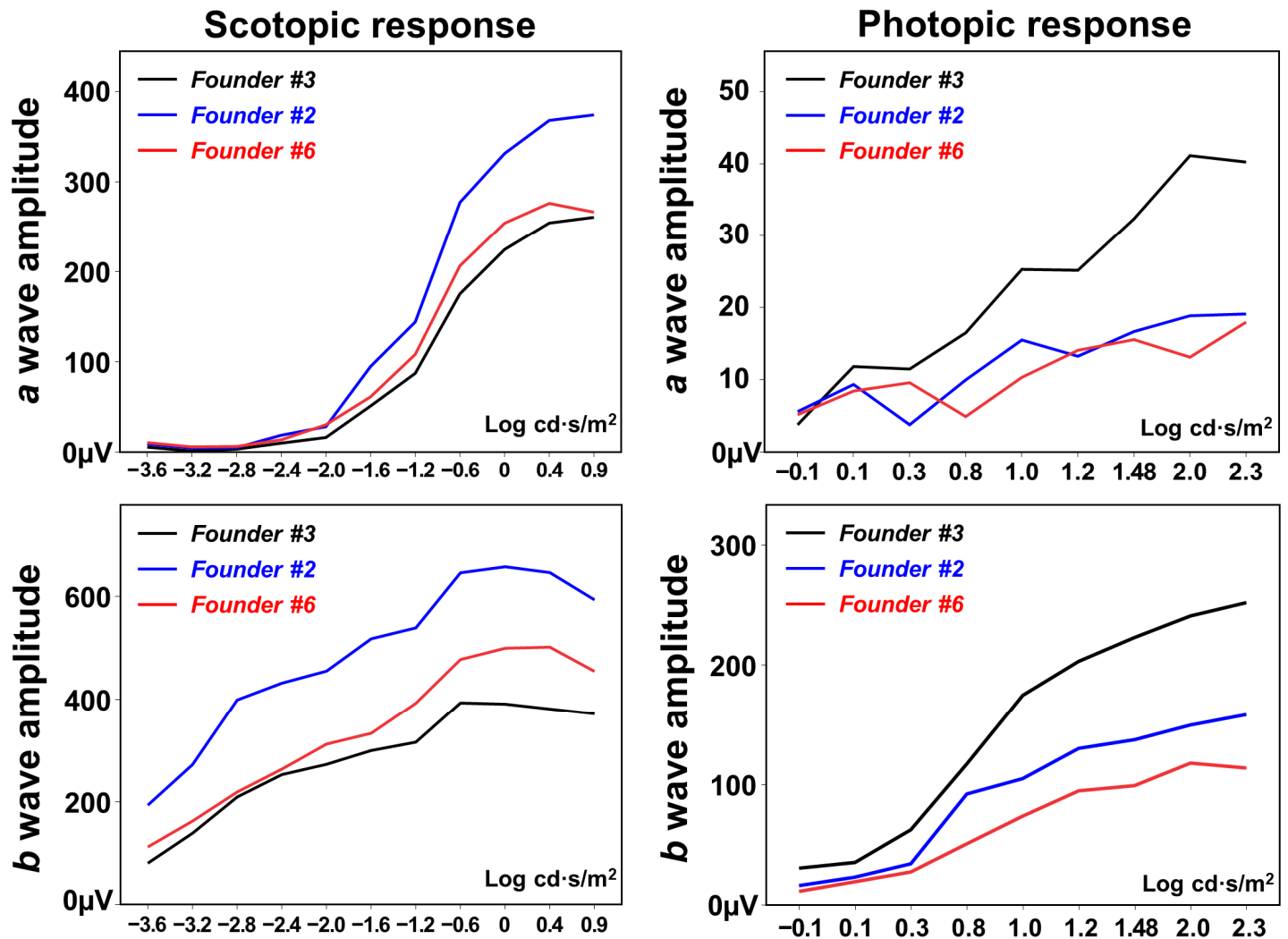
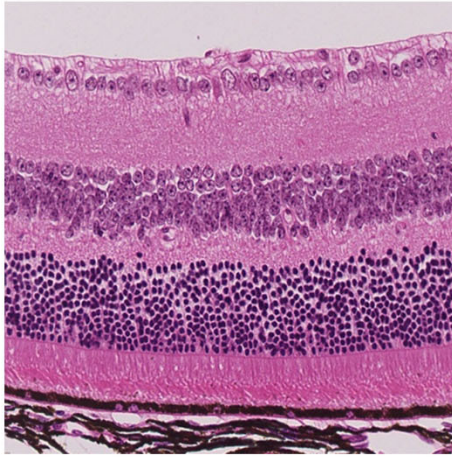


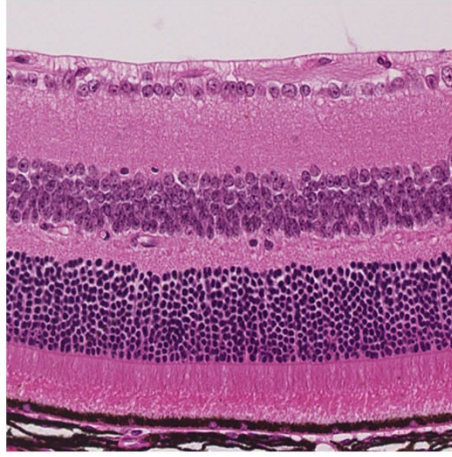
Figure S2. Histology of *Cnga3*^{floxed-miniSTOP} mice at 6 months old

There was no difference in terms of outer nuclear layer between *Cnga3*^{+/+}, *Cnga3*^{floxed-miniSTOP/+} and *Cnga3*^{floxed-miniSTOP} mice from the same litter at 6 months old.

***CNGA3*^{+/+}**



***CNGA3*^{floxed-miniSTOP/+}**



***CNGA3*^{floxed-miniSTOP}**

