

Supplementary Information

NDRG2 suppression as a molecular hallmark of photoreceptor-specific cell death in the mouse retina

Running Title: NDRG2 contributes to photoreceptor homeostasis

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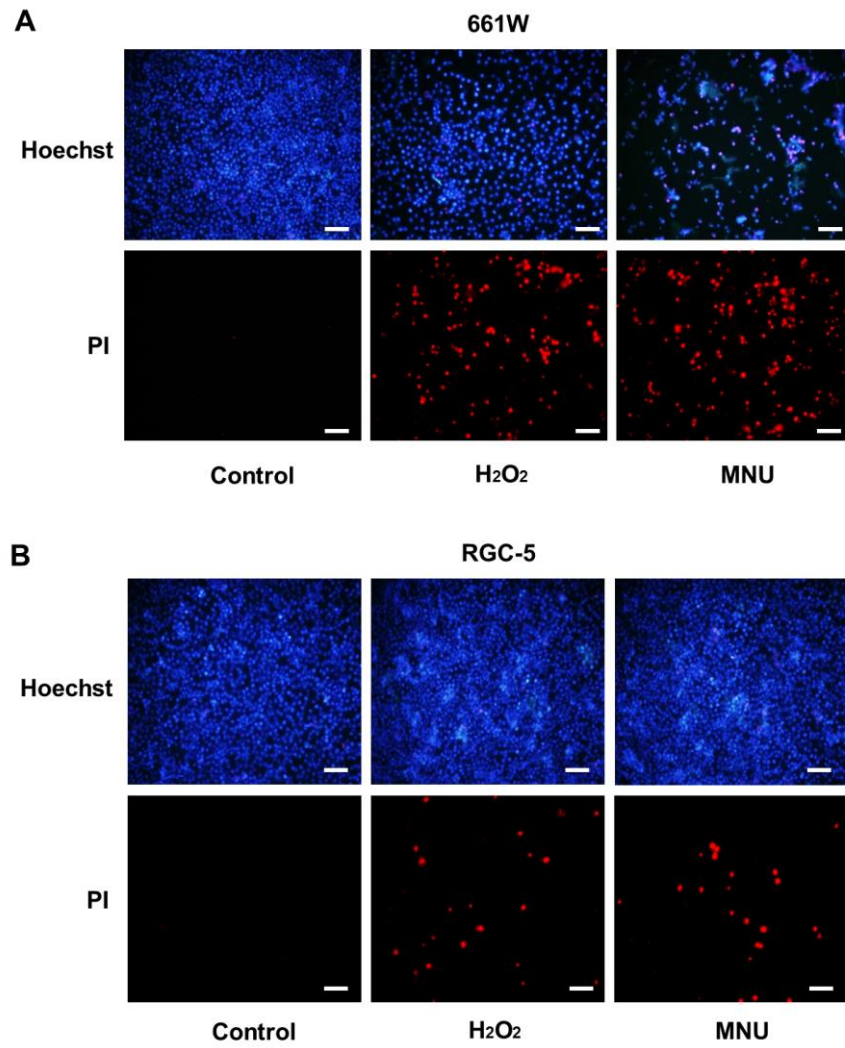
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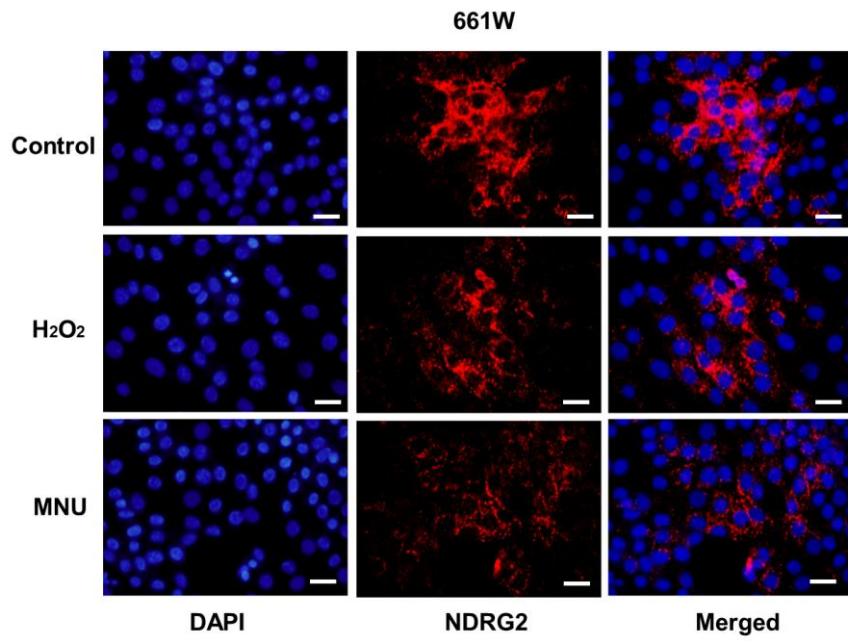
Journal: Cell Death and Disease.

Supplementary information: 4 Supplementary Figures and 1 Supplementary Table.

Supplementary Figures and Legends

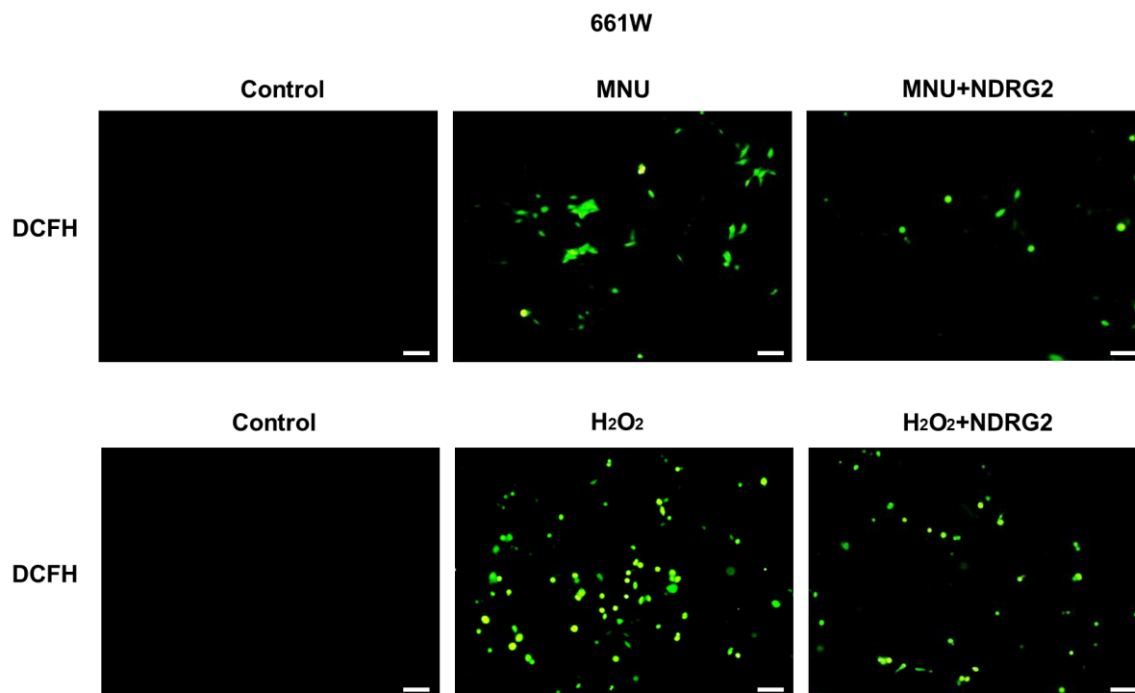


Supplementary Figure 1. Analysis of retinal cell death. Dead cells were positively stained by propidium iodide (PI) in the 661W (A) and RGC-5 (B) cell lines. Scale bar = 20 μ m. $N = 3$ per group.

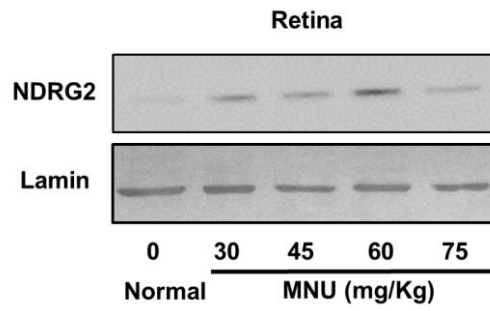


Supplementary Figure 2. Immunofluorescent staining of NDRG2 in the 661W photoreceptor cell line.

Scale bar = 2 μ m. *N* = 3 per group.



Supplementary Figure 3. Contents of reactive oxygen species (ROS) in the 661W photoreceptor cell line. 661W cells were overexpressed with NDRG2 in indicated groups. ROS was detected by the fluorescent dye Dichlorodihydrofluorescein Diacetate (DCFH). Scale bar = 1 μ m. *N* = 3 per group.



Supplementary Figure 4. Nuclear protein expression level of NDRG2 in the retinal tissue. Lamin was used as the internal control.

Supplementary Table 1. Primer sequences in the present study.

| Gene | Primer sequences |
|---------------------------------|--|
| <i>β-actin</i> | Forward: 5'-CTCTTTTCCAGCCTTCCTTCTT-3' Reverse: 5'-GAGGTCTTTACGGATGTCAACG-3' |
| <i>NDRG1</i> | Forward: 5'-CCTCAACGACATGAACCCGA-3' Reverse: 5'-TGCAAAGTGACAGTGTGGGT-3' |
| <i>NDRG2</i> | Forward: 5'-CGCGATATGCTCTGAACCAC-3' Reverse: 5'-TTCCTGGCTGAAAAGATGTCC-3' |
| <i>NDRG3</i> | Forward: 5'-CCGTATGTGCAGCTCAGTCA-3' Reverse: 5'-CTTGAGGTGGAGTGGGTTTCG-3' |
| <i>NDRG4</i> | Forward: 5'-CAGCCATCCTCACCTACCAT-3' Reverse: 5'-GTGGCACACCACAAAGTGTT-3' |
| <i>Nrf2</i> | Forward: 5'-GGACATGGAGCAAGTTTGGC-3' Reverse: 5'-CAGCGGTAGTATCAGCCAGC-3' |
| <i>Ho-1</i> | Forward: 5'-TGACACCTGAGGTCAAGCAC-3' Reverse: 5'-ATCTTGCACCAGGCTAGCAG-3' |
| <i>Nqo1</i> | Forward: 5'-GGTAGCGGCTCCATGTACTC-3' Reverse: 5'-CCAGACGGTTTCCAGACGTT-3' |
