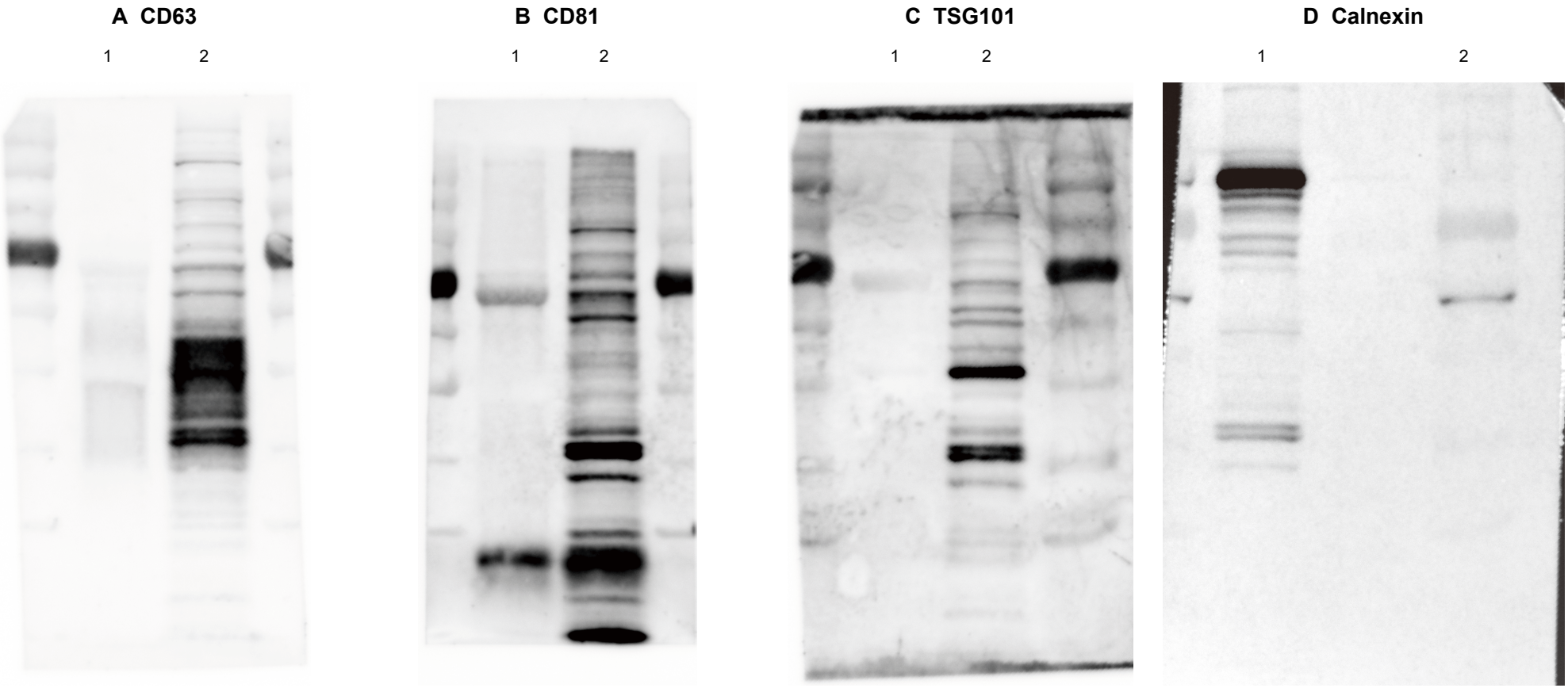
Supplementary Information

Supplementary Fig. S1. Characterization of hiPSCs and hiPSC-sEVs

Corresponding main-figure panel: Fig. 1F

Lane key: 1, hiPSC 2, hiPSC-sEV



CD63, CD81, TSG101, and calnexin blots correspond to the hiPSC and hiPSC-sEV comparison in Fig. 1F. CD81 and calnexin are horizontally reflected to match the sample order in the main figure.

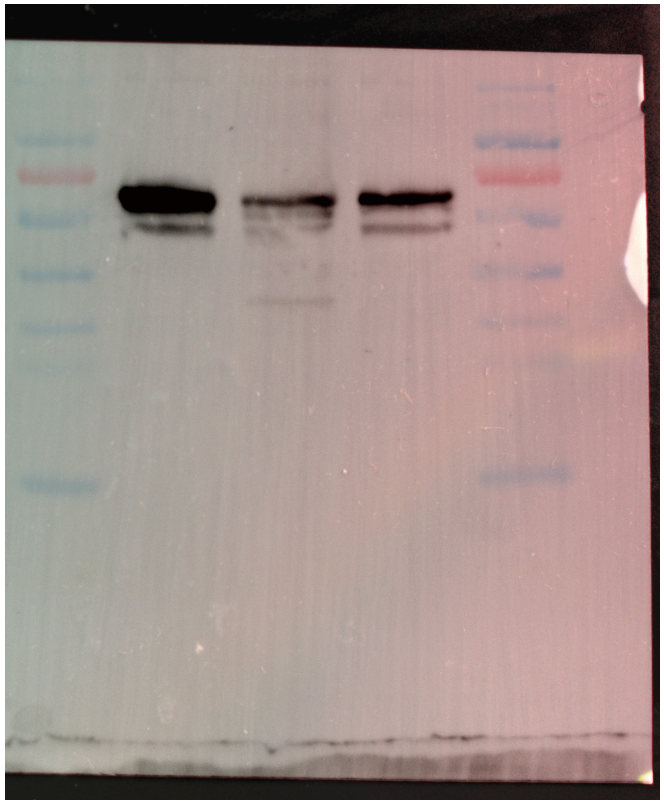
Supplementary Information

Supplementary Fig. S2. Retinal occludin and GAPDH

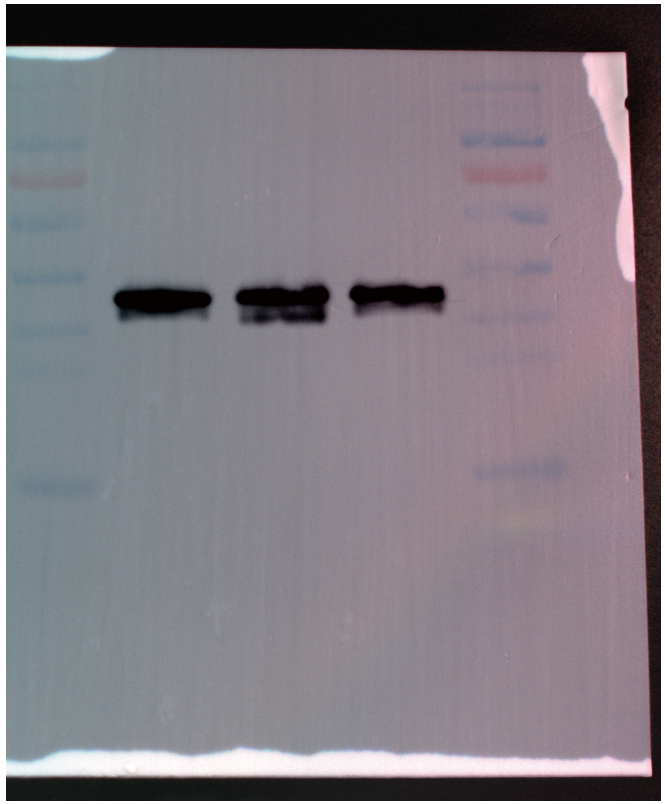
Corresponding main-figure panel: Fig. 2D

Lane key: 1, Control 2, DM 3, DM + sEV

A Occludin



B GAPDH



Occludin and GAPDH blots correspond to retinal samples in Fig. 2D. Sample lanes 1-3 represent Control, DM, and DM + sEV, respectively.

Supplementary Information

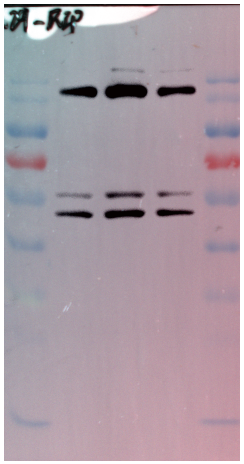
Supplementary Fig. S3. Retinal mitochondrial regulatory proteins

Corresponding main-figure panel: Fig. 3B

Lane key: 1, Control 2, DM 3, DM + sEV

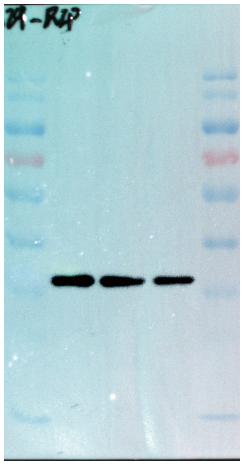
A RIP140

1 2 3



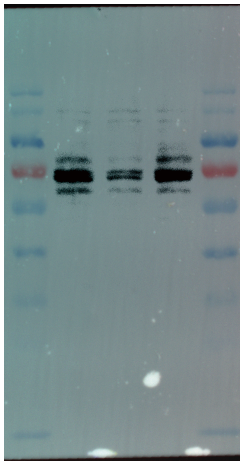
GAPDH

1 2 3



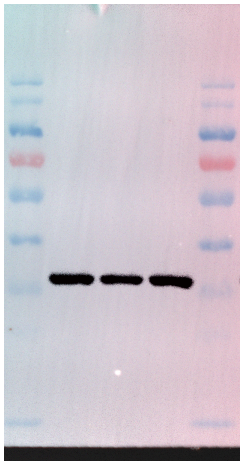
B PGC-1α

1 2 3



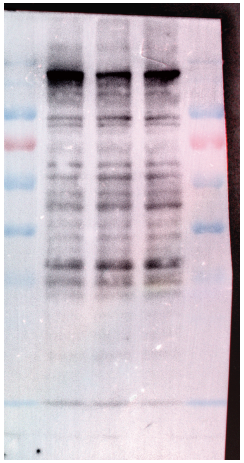
GAPDH

1 2 3



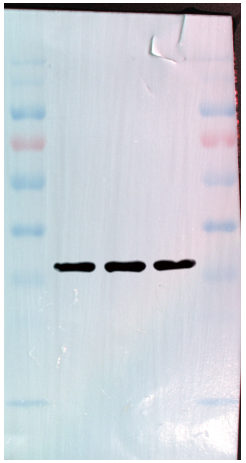
C NRF1

1 2 3



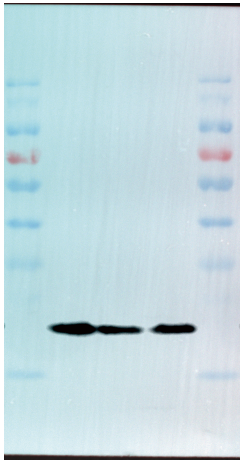
GAPDH

1 2 3



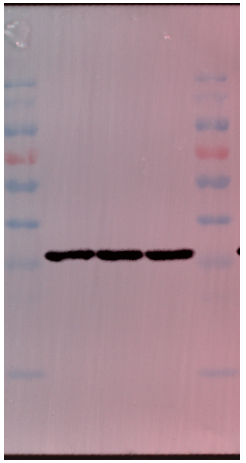
D TFAM

1 2 3



GAPDH

1 2 3



Supplementary Information

Supplementary Fig. S4. Mitochondrial regulatory proteins in hRMECs

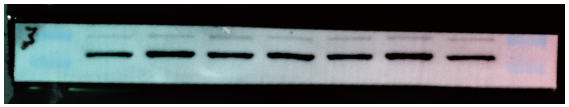
Corresponding main-figure panel: Fig. 6E

1, Control
2, HG
3, HG + sEV
4, HG + sEV-miR-30e-5p-KD
5, HG + sEV-miR-NC
6, HG + sEV + OE-NRIP1
7, HG + sEV + OE-NC

The GAPDH image in panel B is shared by PGC-1α and TFAM.

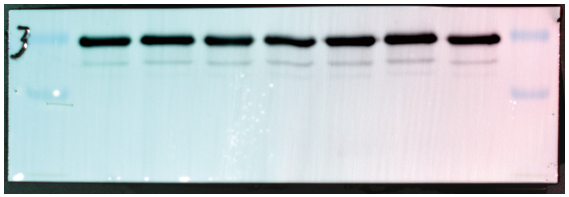
A RIP140

1 2 3 4 5 6 7



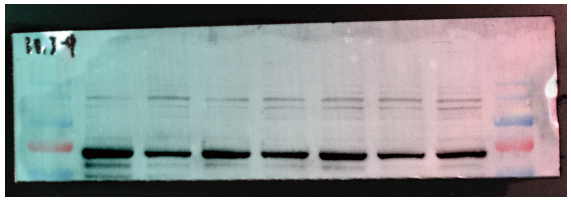
GAPDH

1 2 3 4 5 6 7



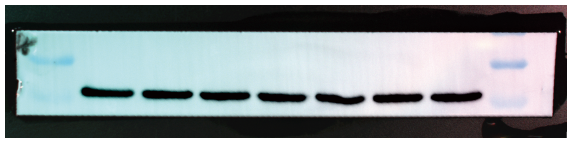
B PGC-1α

1 2 3 4 5 6 7



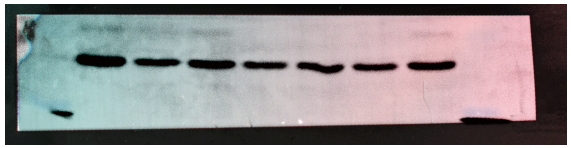
GAPDH

1 2 3 4 5 6 7



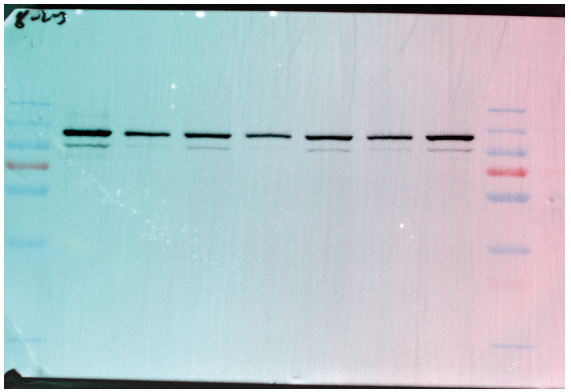
TFAM

1 2 3 4 5 6 7



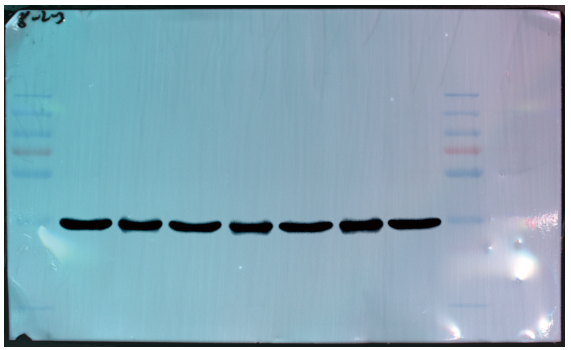
C NRF1

1 2 3 4 5 6 7



GAPDH

1 2 3 4 5 6 7



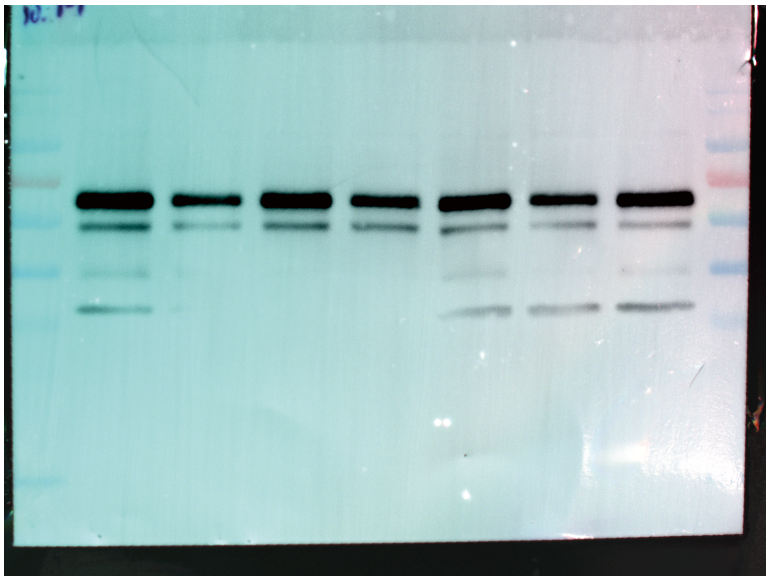
Supplementary Information

Supplementary Fig. S5. Occludin and GAPDH in hRMECs

Corresponding main-figure panel: Fig. 6K

1, Control
2, HG
3, HG + sEV
4, HG + sEV-miR-30e-5p-KD
5, HG + sEV-miR-NC
6, HG + sEV + OE-NRIP1
7, HG + sEV + OE-NC

A Occludin



B GAPDH

