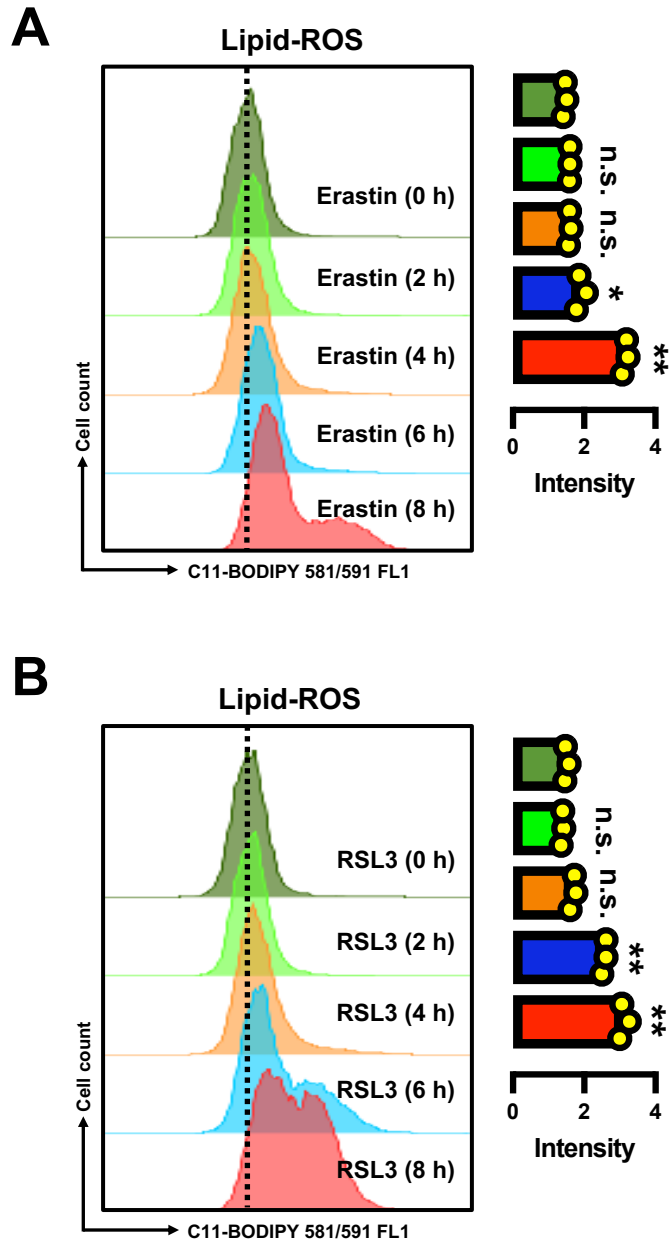


Protection of HT22 Neuronal Cells Against Chemically-Induced Ferroptosis by Catechol Estrogens: Protein Disulfide Isomerase as a Mechanistic Target

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Running Title: Cytoprotective Action of Catechol Estrogens

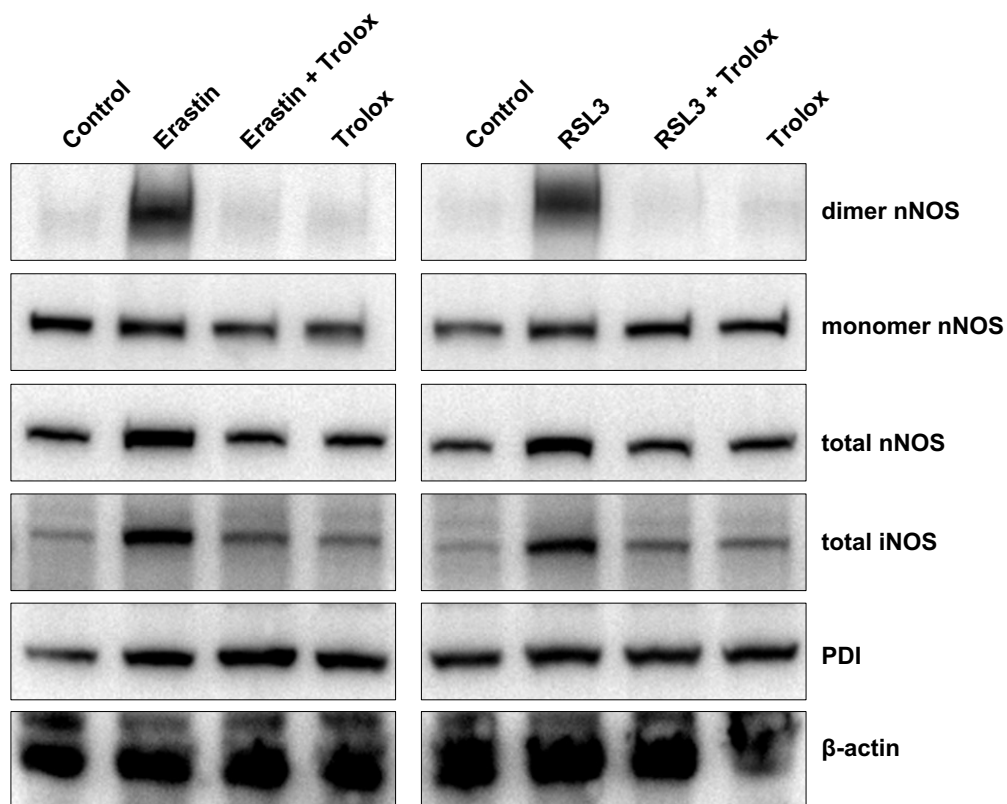


Supplementary Fig. S1. Time-dependent accumulation of lipid-ROS following erastin and RSL3 treatment in HT22 cells.

A. Time-dependent accumulation of cellular lipid-ROS after the cells were treated with 0.8 μ M erastin (flow cytometry). Each value is the mean \pm S.D. ($n = 3$).

B. Time-dependent accumulation of cellular lipid-ROS after the cells were treated with 80 nM RSL3 (flow cytometry). Each value is the mean \pm S.D. ($n = 3$).

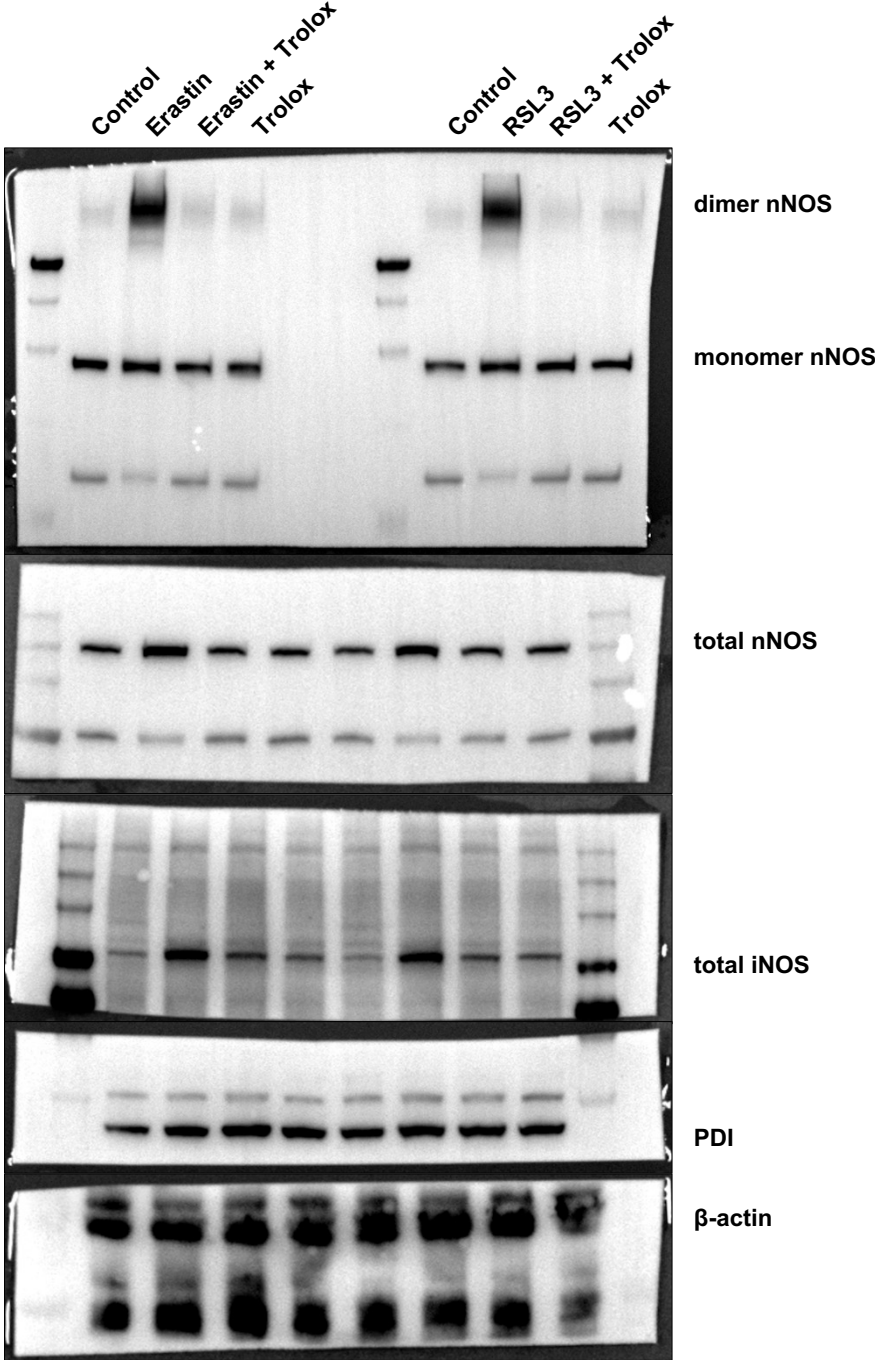
Supplementary Figure S2



Supplementary Fig. S2. Effect of Trolox on cellular total nNOS and iNOS levels and on nNOS dimerization in HT22 cells treated with erastin or RSL3.

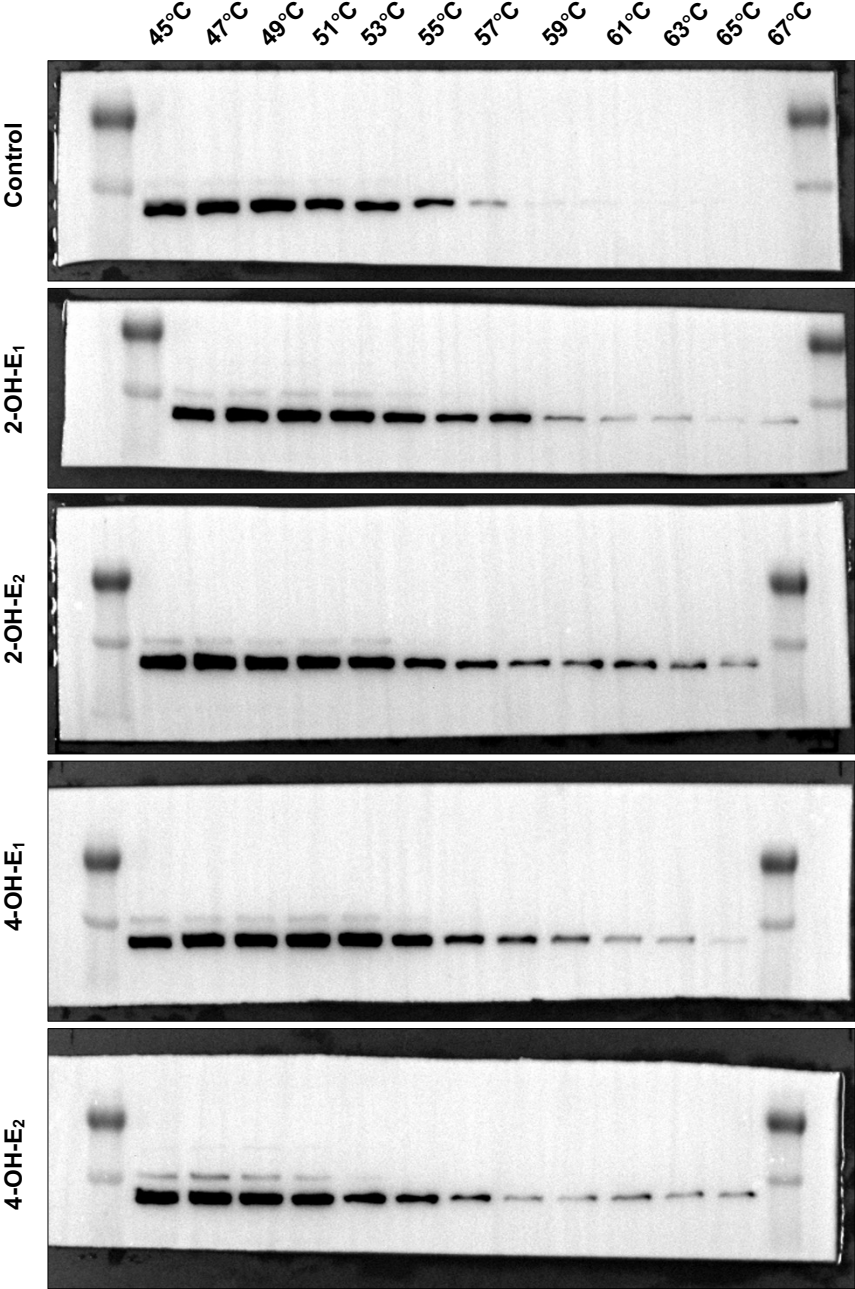
Cells were treated with erastin ($0.8 \mu\text{M}$) \pm Trolox ($100 \mu\text{M}$) for 8 h or RSL3 ($0.08 \mu\text{M}$) \pm Trolox ($100 \mu\text{M}$) for 6 h. Proteins were separated using 10% agarose gel (for analysis of total NOS protein) or 6% agarose gel (for analysis of monomeric and dimeric NOS proteins). The corresponding unprocessed Western blot images are shown in **Supplementary Fig. S3**.

Supplementary Figure S3



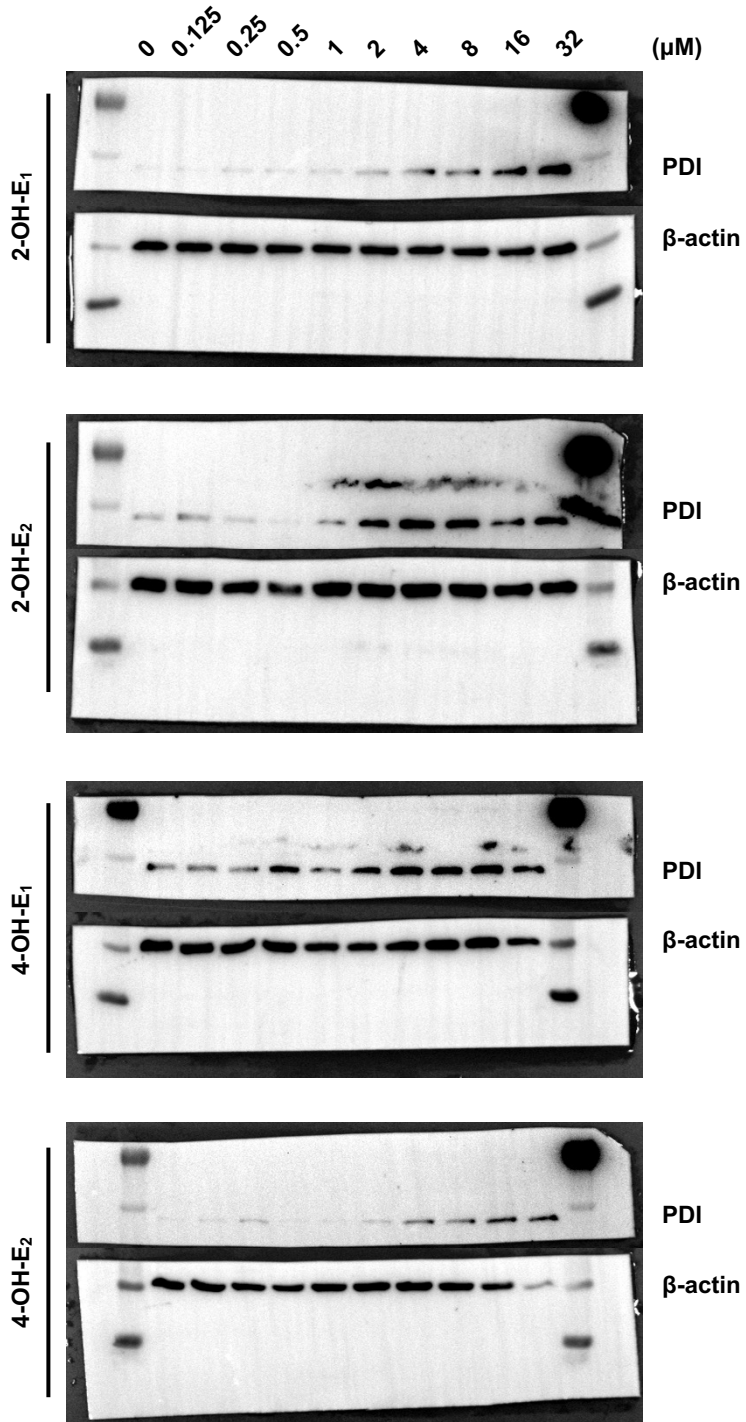
Supplementary Fig. S3. Corresponding unprocessed Western blot images for the data shown in Supplementary Fig. S2.

Supplementary Figure S4



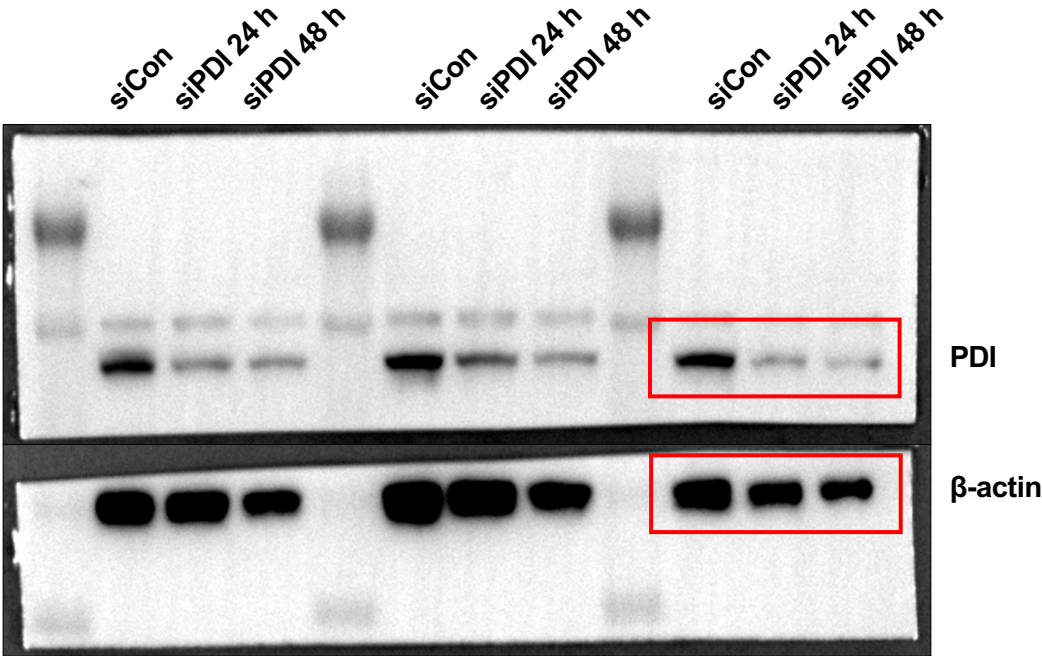
Supplementary Fig. S4. Corresponding unprocessed Western blot images for Fig. 8A.

Supplementary Figure S5



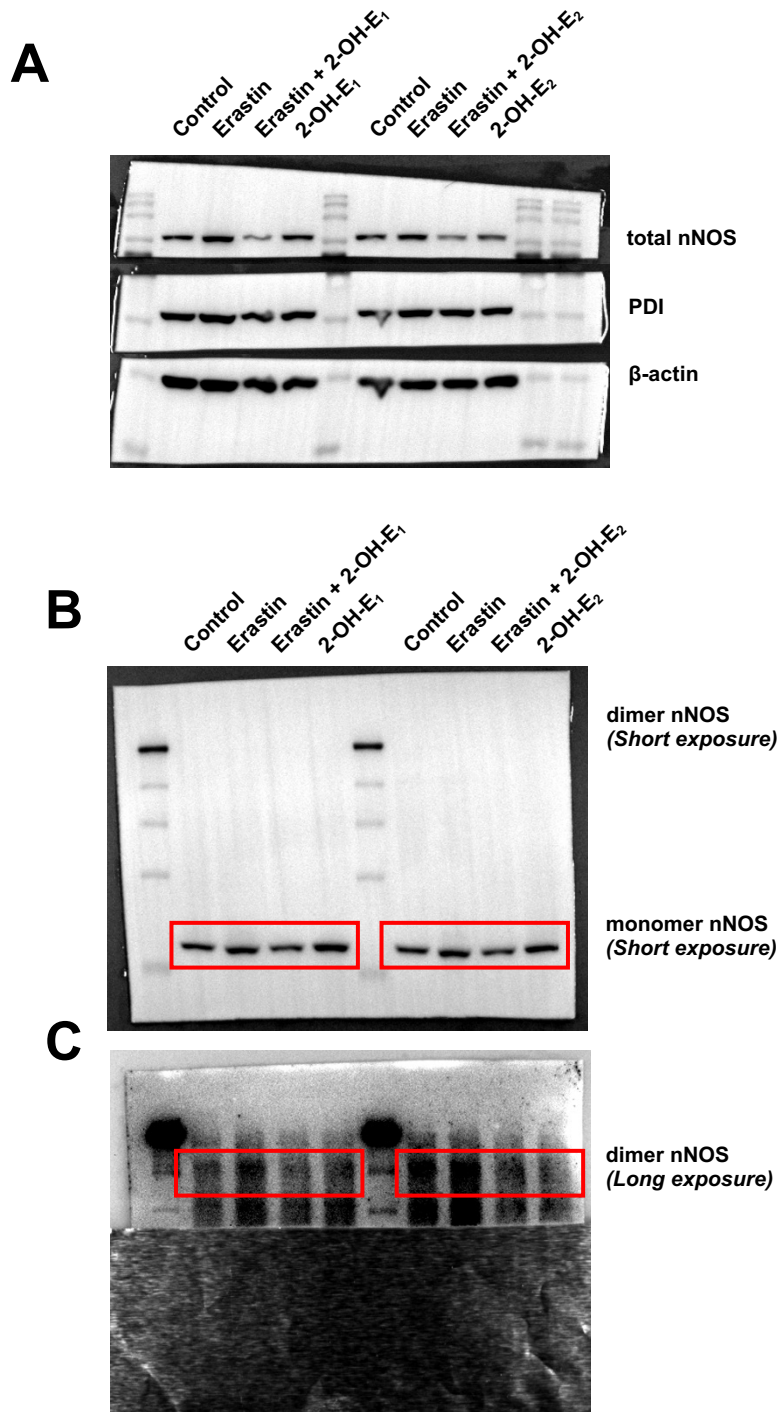
Supplementary Fig. S5. Corresponding unprocessed Western blot images for Fig. 9A.

Supplementary Figure S6



Supplementary Fig. S6. Corresponding unprocessed Western blot images for Fig 10A.
Note that the bands highlighted in the red boxes were cut and used in Fig. 10A.

Supplementary Figure S7



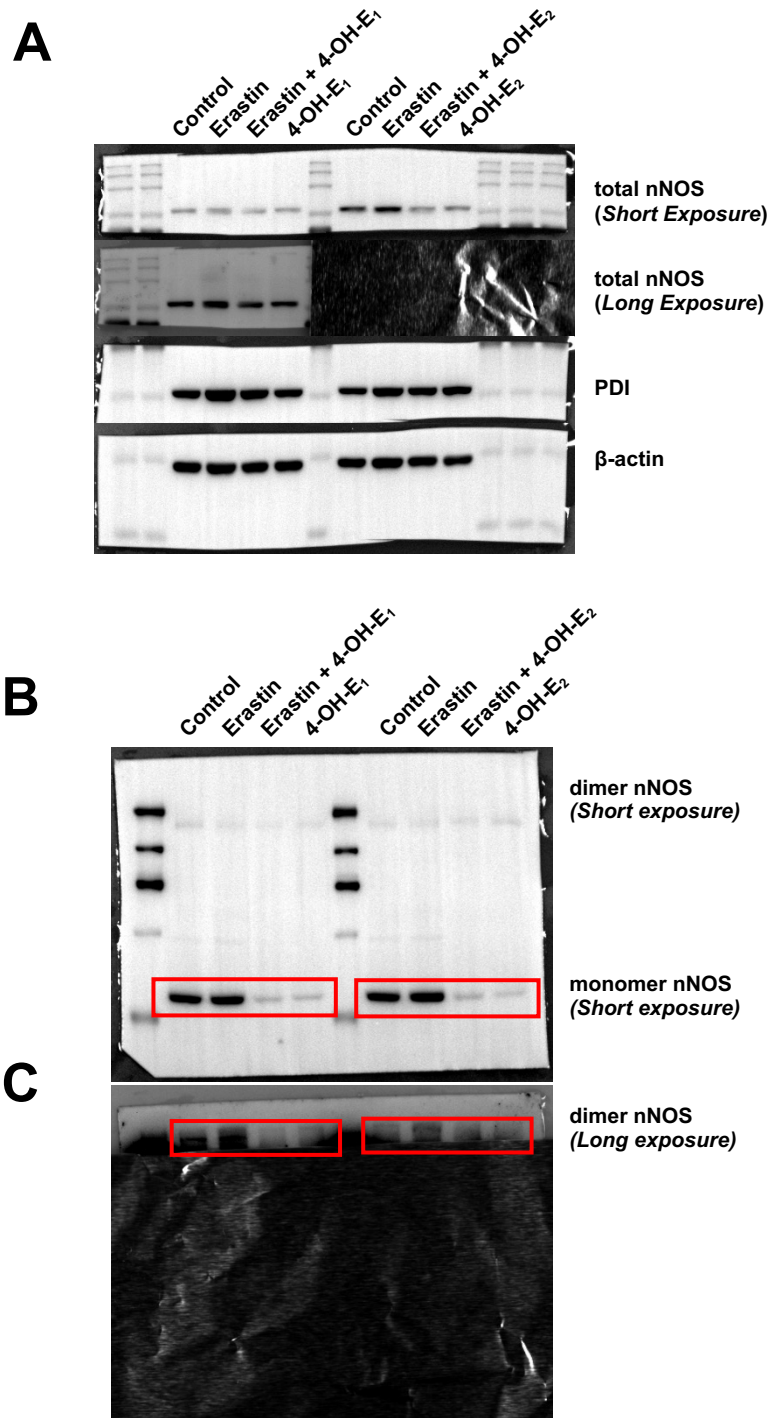
Supplementary Fig. S7. Corresponding unprocessed Western blot images for the data shown in Fig. 11A, 11B.

A. Unprocessed blots for total nNOS, PDI and β -actin as shown in Fig. 11A, 11B.

B. Unprocessed blots for nNOS monomer (the red boxes represent the nNOS monomer shown in Fig. 11A, 11B).

C. Unprocessed blots for nNOS dimer (the red boxes represent the nNOS dimer shown in Fig. 11A, 11B).

Supplementary Figure S8



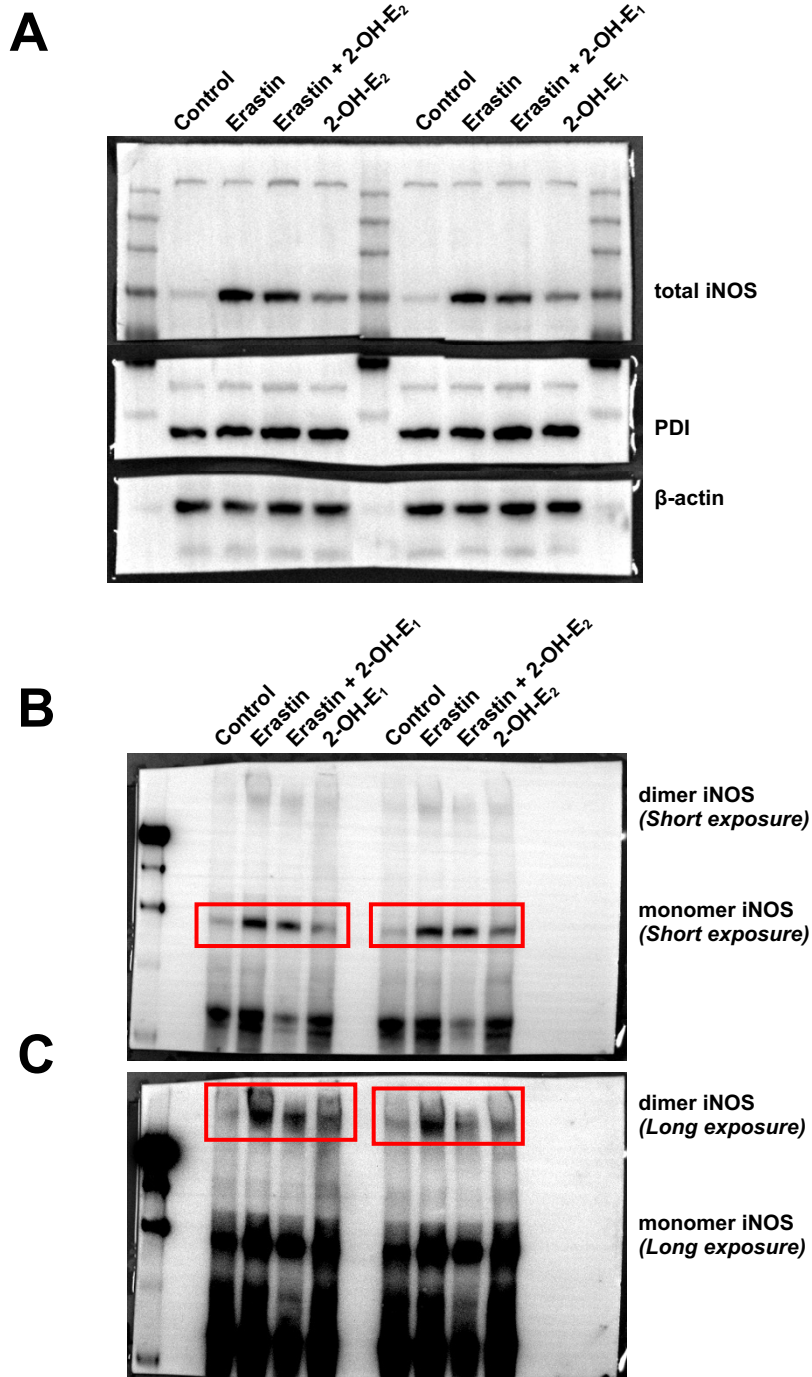
Supplementary Fig. S8. Corresponding unprocessed Western blot images for the data shown in Fig. 11C, 11D.

A. Unprocessed blots for total nNOS, PDI and β -actin as shown in Fig. 11C, 11D.

B. Unprocessed blots for nNOS monomer (the red boxes represent the nNOS monomer shown in Fig. 11C, 11D).

C. Unprocessed blots for nNOS dimer (the red boxes represent the nNOS dimer shown in Fig. 11C, 11D).

Supplementary Figure S9



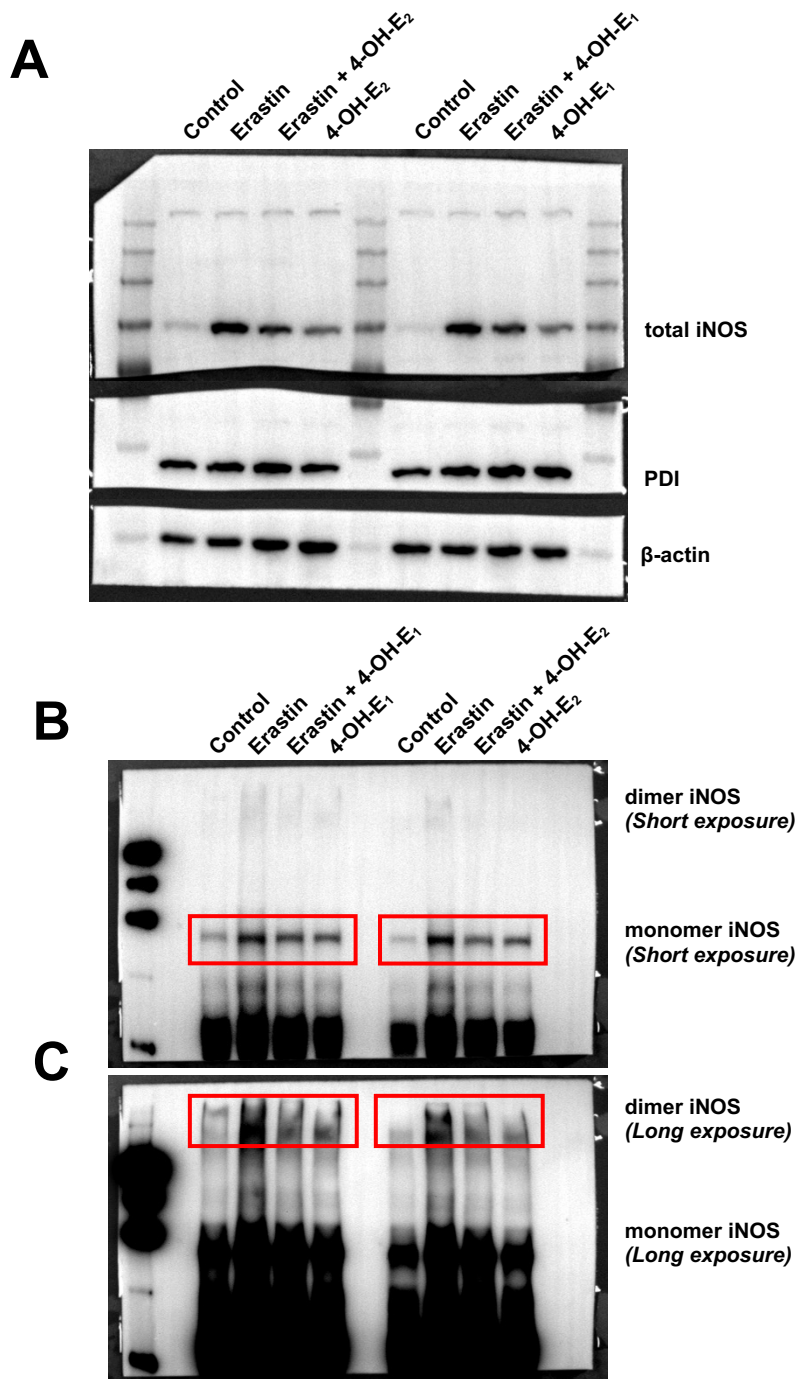
Supplementary Fig. S9. Corresponding unprocessed Western blot images for the data shown in Fig 11E, 11F.

A. Unprocessed blots for total iNOS, PDI and β -actin as shown in **Fig. 11E, 11F**.

B. Unprocessed blots for iNOS monomer (the red boxes represent the iNOS monomer shown in **Fig. 11E, 11F**).

C. Unprocessed blots for iNOS dimer (the red boxes represent the iNOS dimer shown in **Fig. 11E, 11F**).

Supplementary Figure S10



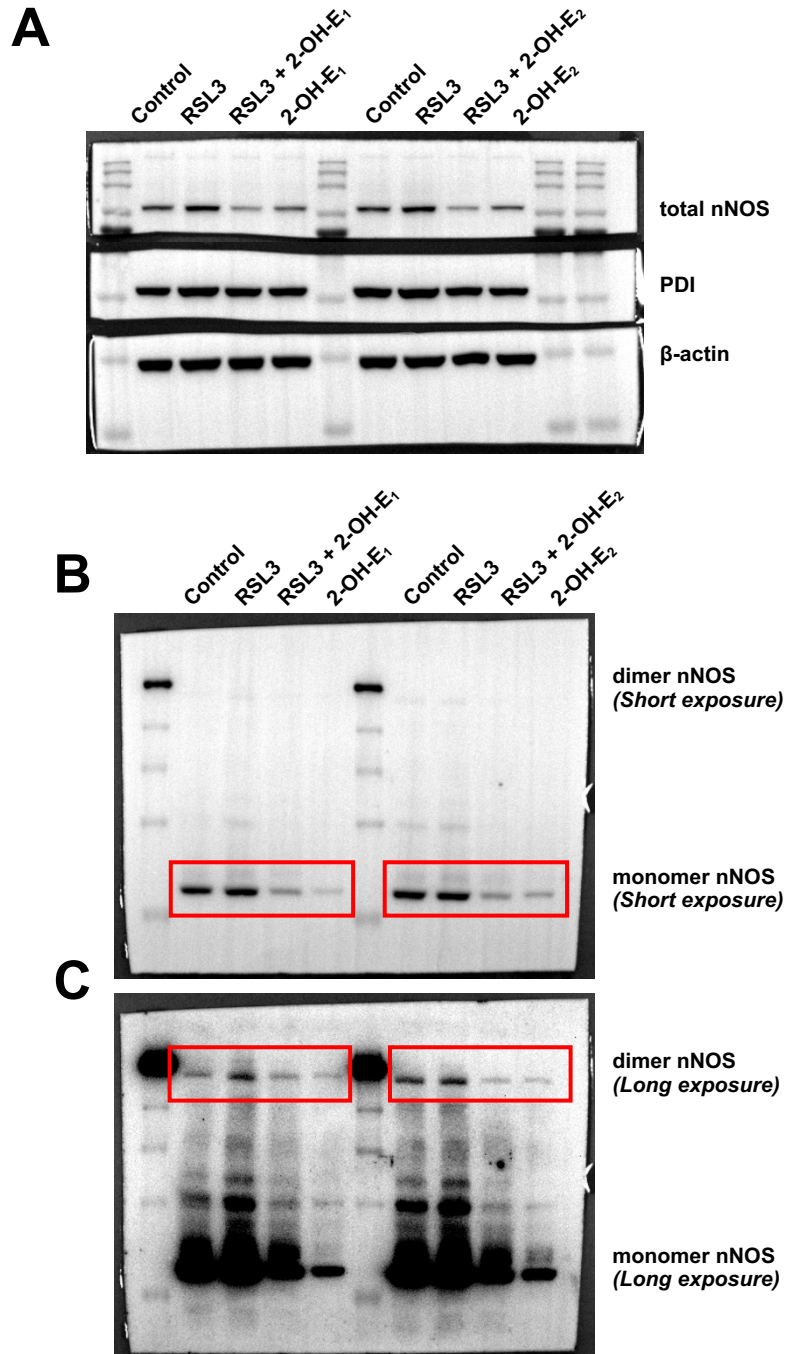
Supplementary Fig. S10. Corresponding unprocessed Western blot images for the data shown in Fig 11G, 11H.

A. Unprocessed blots for total iNOS, PDI and β -actin as shown in Fig. 11G, 11H.

B. Unprocessed blots for iNOS monomer (the red boxes represent the iNOS monomer shown in Fig. 11G, 11H).

C. Unprocessed blots for iNOS dimer (the red boxes represent the iNOS dimer shown in Fig. 11G, 11H).

Supplementary Figure S11



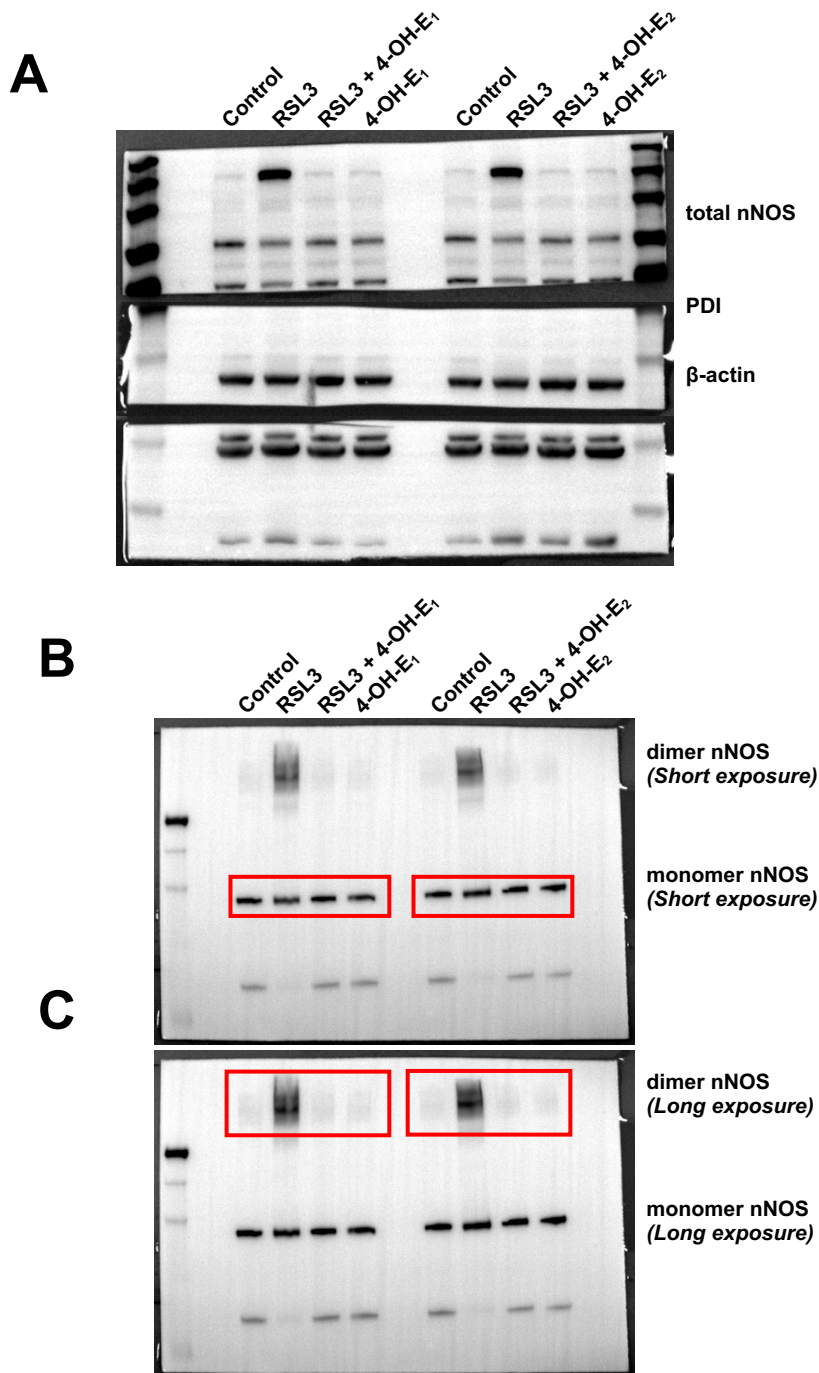
Supplementary Fig. S11. Corresponding unprocessed Western blot images for the data shown in Fig. 11I, 11J.

A. Unprocessed blots for total nNOS, PDI and β -actin as shown in Fig. 11I, 11J.

B. Unprocessed blots for nNOS monomer (the red boxes represent the nNOS monomer shown in Fig. 11I, 11J).

C. Unprocessed blots for nNOS dimer (the red boxes represent the nNOS dimer shown in Fig. 11I, 11J).

Supplementary Figure S12



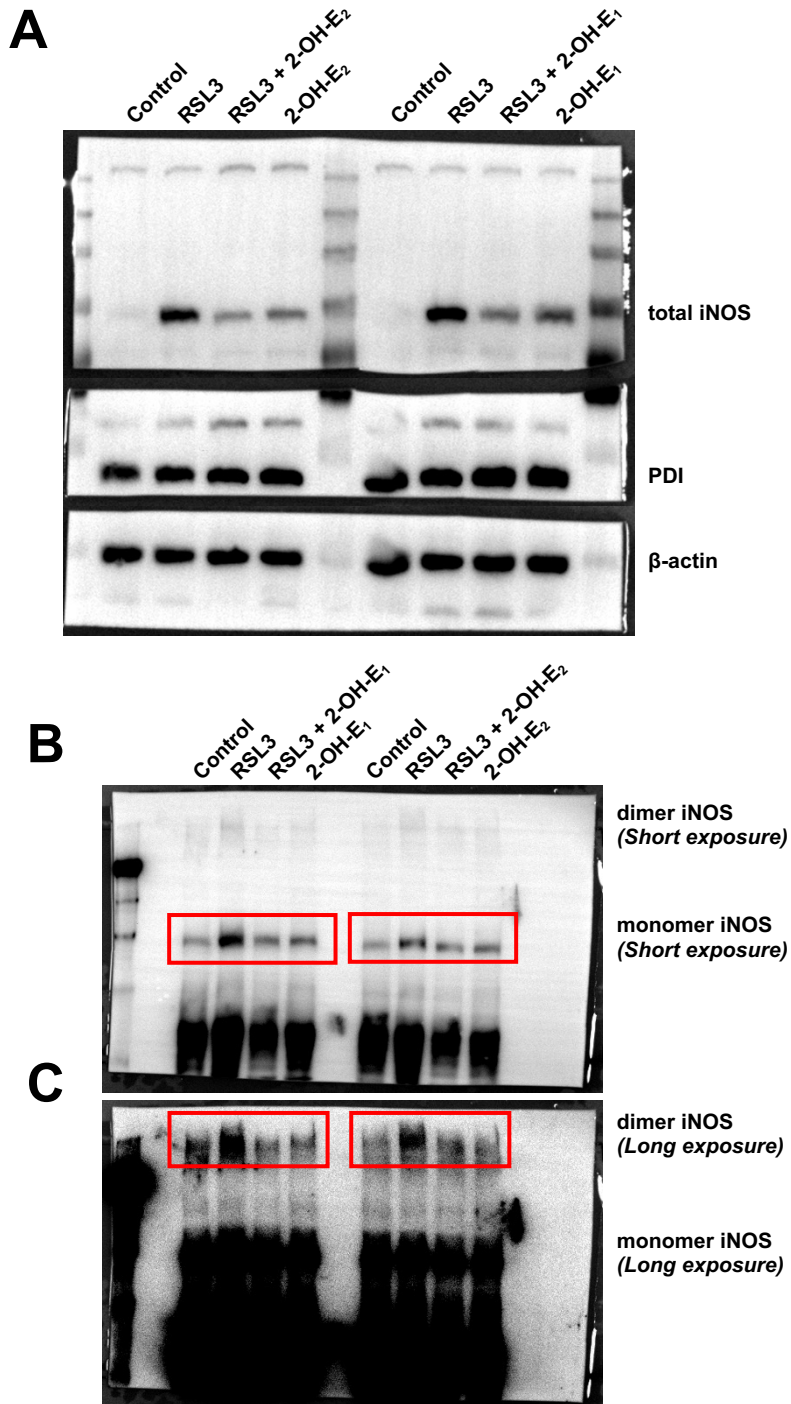
Supplementary Fig. S12. Corresponding unprocessed Western blot images for the data shown in Fig 11K, 11L.

A. Unprocessed blots for total nNOS, PDI and β-actin as shown in Fig. 11K, 11L.

B. Unprocessed blots for nNOS monomer (the red boxes represent the nNOS monomer shown in Fig. 11K, 11L).

C. Unprocessed blots for nNOS dimer (the red boxes represent the nNOS dimer shown in Fig. 11K, 11L).

Supplementary Figure S13



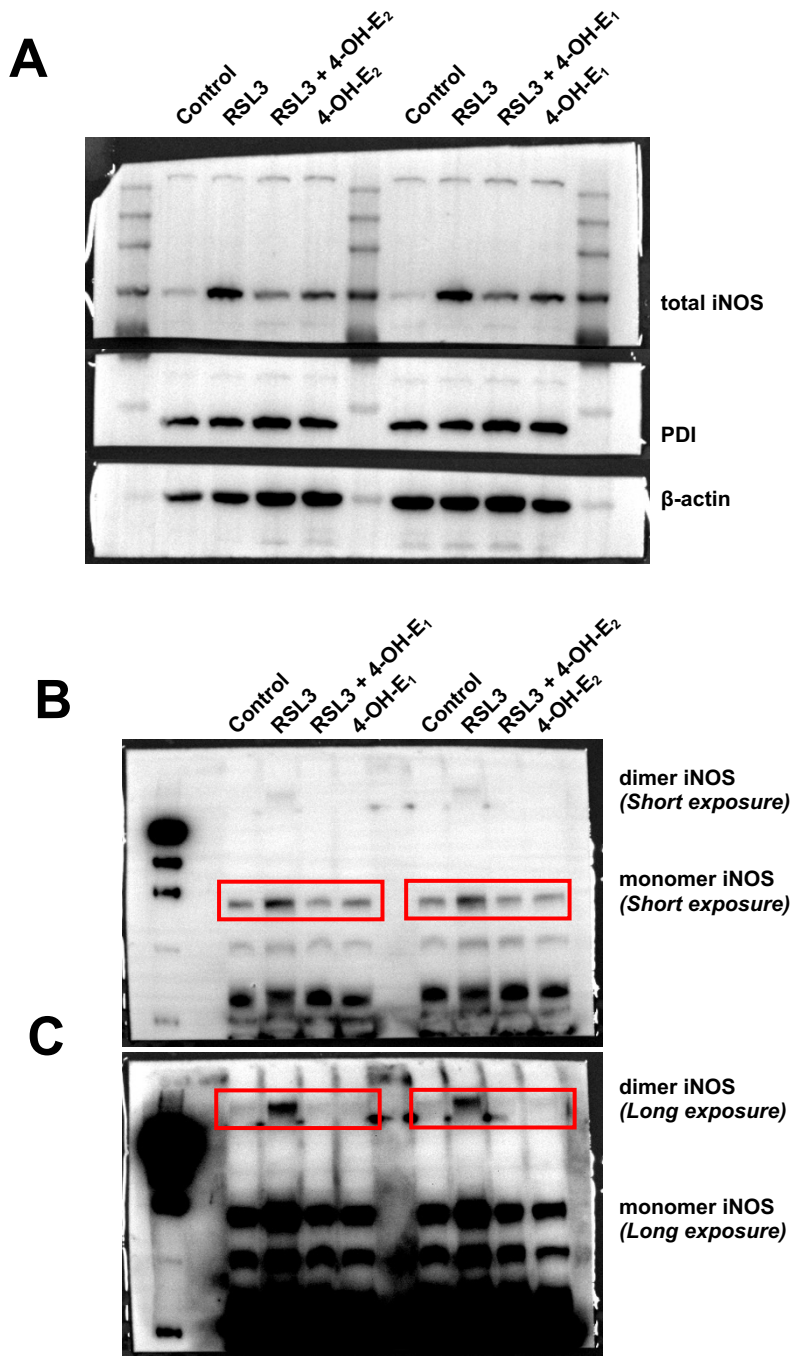
Supplementary Fig. S13. Corresponding unprocessed Western blot images for the data shown in Fig. 11M, 11N.

A. Unprocessed blots for total iNOS, PDI and β -actin as shown in Fig. 11M, 11N.

B. Unprocessed blots for iNOS monomer (the red boxes represent the iNOS monomer shown in Fig. 11M, 11N).

C. Unprocessed blots for iNOS dimer (the red boxes represent the iNOS dimer shown in Fig. 11M, 11N).

Supplementary Figure S14



Supplementary Fig. S14. Corresponding unprocessed Western blot images for the data shown in Fig. 11O, 11P.

A. Unprocessed blots for total iNOS, PDI and β -actin as shown in Fig. 11O, 11P.

B. Unprocessed blots for iNOS monomer (the red boxes represent the iNOS monomer shown in Fig. 11O, 11P).

C. Unprocessed blots for iNOS dimer (the red boxes represent the iNOS dimer shown in Fig. 11O, 11P).