

Supplementary Materials for

Discovery of Phenolic Glycoside from *Hyssopus cuspidatus* Attenuates LPS-Induced Inflammatory Responses by Inhibition of iNOS and COX-2 Expression through Suppression of NF- κ B Activation

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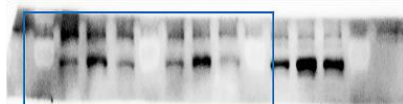
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Compound	COX-2 (kcal/mol)	iNOS (kcal/mol)	NF-κB (kcal/mol)	IκB (kcal/mol)
2'-acetylacteoside	-9.2	-7.8	-8.3	-8.5
Echinacoside	-8.7	-7.9	-10.1	-8.6
Gastrodin	-7.6	-6.7	-7.1	-6.4
Isoacteoside	-9.0	-9.6	-8.2	-9.2
Salidroside	-7.2	-8.1	-6.8	-6.4
Verbascoside	-10.2	-10	-8.4	-9.2
Hyssoposide	-9.5	-9.0	-8.6	-7.7

Figure S1: The binding energy profile of molecular docking of natural phenolic glycosides with COX-2, iNOS, NF-κB and IκB.

Figure 5C: p65



Lane Description:

p65 in RAW 264.7 cells

Lane 1: marker for 70 KDa

Lane 2: Control

Lane 3: Treated with LPS for 60 min

Lane 4: Treat with LPS and 35 μM HY for 60 min

p65 in primary peritoneal macrophages

Lane 5: marker for 70 KDa

Lane 6: Control

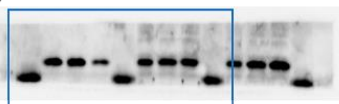
Lane 7: Treated with LPS for 60 min

Lane 8: Treat with LPS and 35 μM HY for 60 min

Lane 9: marker for 70 KDa

Lane 10-12: Not appeared in the manuscript

Figure 5C: Histone-H3



Lane Description:

Histone-H3 in RAW 264.7 cells

Lane 1: marker for 15 KDa

Lane 2: Control

Lane 3: Treated with LPS for 60 min

Lane 4: Treat with LPS and 35 μM HY for 60 min

Histone-H3 in primary peritoneal macrophages

Lane 5: marker for 15 KDa

Lane 6: Control

Lane 7: Treated with LPS for 60 min

Lane 8: Treat with LPS and 35 μM HY for 60 min

Lane 9: marker for 15 KDa

Lane 10-12: Not appeared in the manuscript

Figure 5C: GAPDH



Lane Description:

GAPDH in RAW 264.7 cells

Lane 1: marker for 35 KDa

Lane 2: Control

Lane 3: Treated with LPS for 60 min

Lane 4: Treat with LPS and 35 μM HY for 60 min

GAPDH in primary peritoneal macrophages

Lane 5: marker for 35 KDa

Lane 6: Control

Lane 7: Treated with LPS for 60 min

Lane 8: Treat with LPS and 35 μM HY for 60 min

Lane 9: marker for 35 KDa

Lane 10-12: Not appeared in the manuscript

Figure S2: The whole un-cropped western blots images of figure 5C and 5D.



Figure S3: The whole un-cropped western blots images of figure 6A.

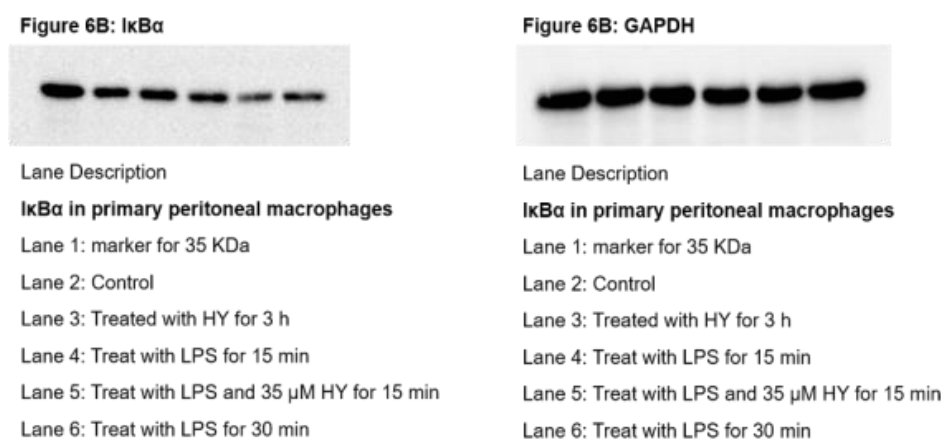


Figure S4: The whole un-cropped western blots images of figure 6B.

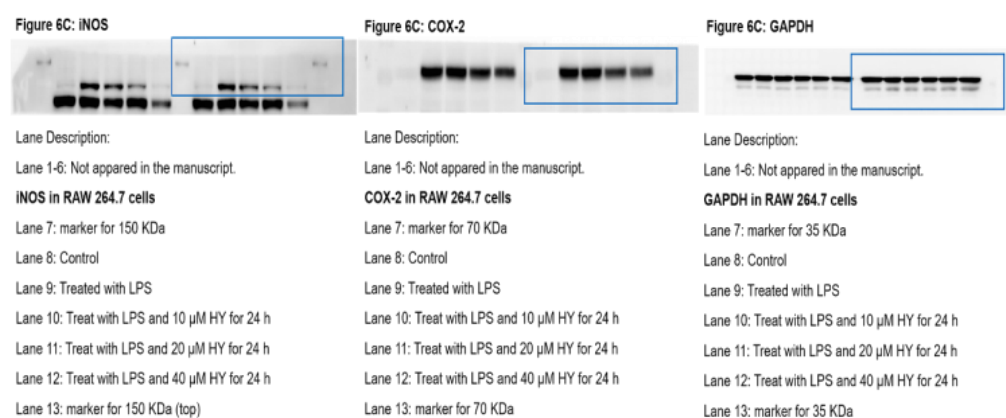


Figure S5: The whole un-cropped western blots images of figure 6C.

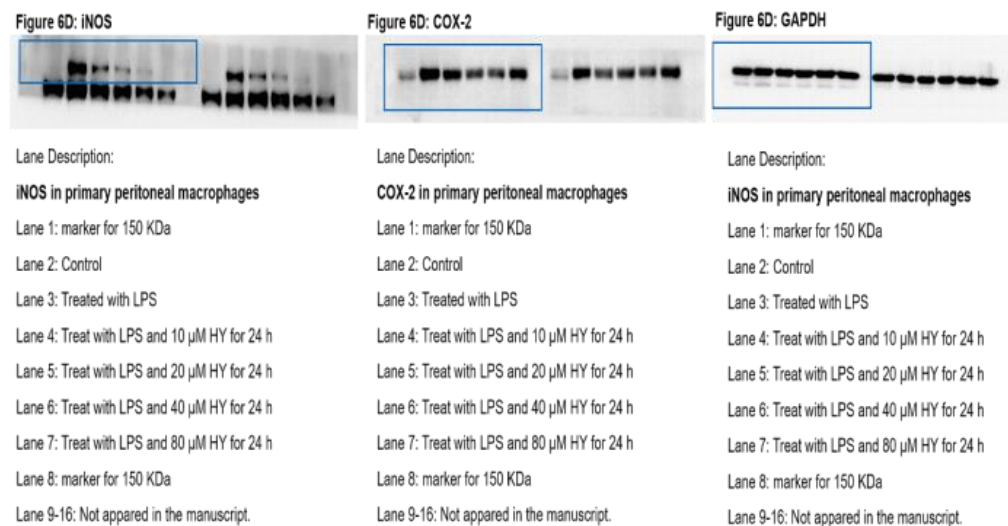


Figure S6: The whole un-cropped western blots images of figure 6D.

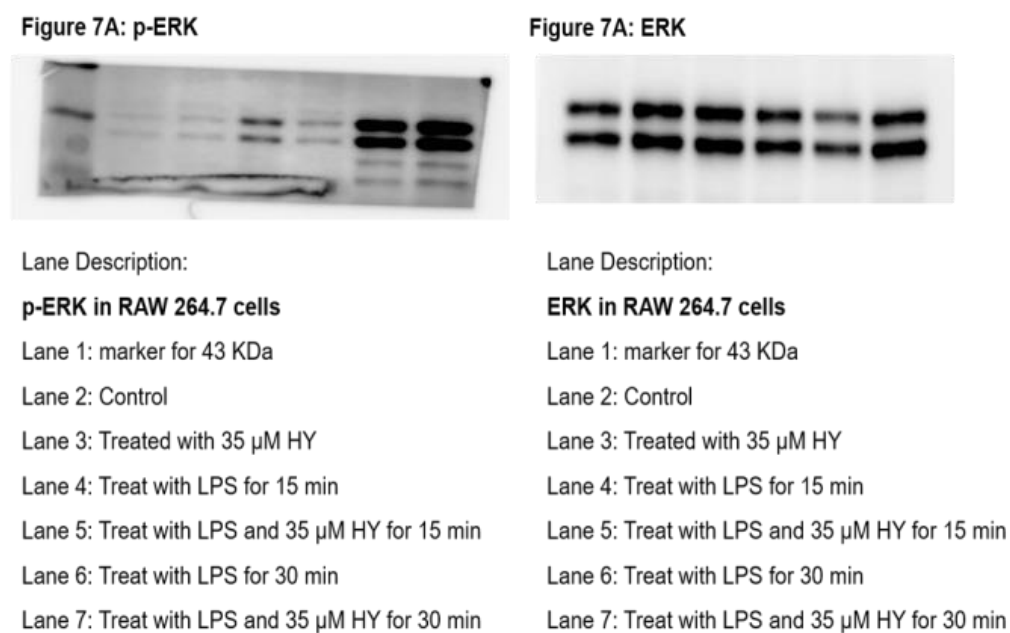
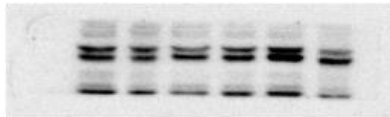


Figure S7: The whole un-cropped western blots images of figure 7A.

Figure 7A: p-p38

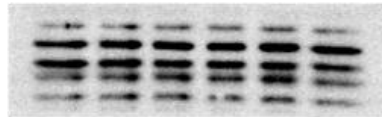


Lane Description:

p-p38 in RAW 264.7 cells

Lane 1: marker (too weak)
Lane 2: Control
Lane 3: Treated with 35 μ M HY
Lane 4: Treat with LPS for 15 min
Lane 5: Treat with LPS and 35 μ M HY for 15 min
Lane 6: Treat with LPS for 30 min
Lane 7: Treat with LPS and 35 μ M HY for 30 min

Figure 7A: p38



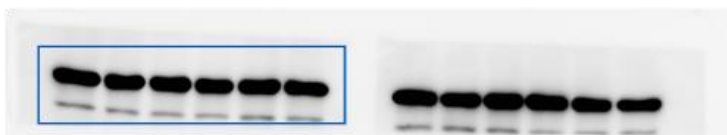
Lane Description:

p-p38 in RAW 264.7 cells

Lane 1: Control
Lane 2: Treated with 35 μ M HY
Lane 3: Treat with LPS for 15 min
Lane 4: Treat with LPS and 35 μ M HY for 15 min
Lane 5: Treat with LPS for 30 min
Lane 6: Treat with LPS and 35 μ M HY for 30 min

Figure S8: The whole un-cropped western blots images of figure 7A.

Figure 7A: GAPDH



Lane Description:

GAPDH in RAW 264.7 cells

Lane 1: marker
Lane 2: Control
Lane 3: Treated with 35 μ M HY
Lane 4: Treat with LPS for 15 min
Lane 5: Treat with LPS and 35 μ M HY for 15 min
Lane 6: Treat with LPS for 30 min
Lane 7: Treat with LPS and 35 μ M HY for 30 min
Lane 8: marker
Lane 9-14: Not appeared in the manuscript

Figure S9: The whole un-cropped western blots images of GAPDH for figure 7A.

Figure 7B: p-ERK



Lane Description:

p-ERK in primary peritoneal macrophages

Lane 1: marker for 43 KDa

Lane 2: Control

Lane 3: Treated with 35 μ M HY

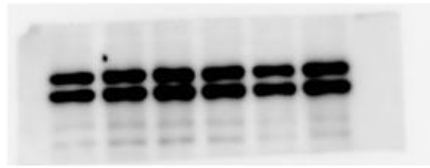
Lane 4: Treat with LPS for 15 min

Lane 5: Treat with LPS and 35 μ M HY for 15 min

Lane 6: Treat with LPS for 30 min

Lane 7: Treat with LPS and 35 μ M HY for 30 min

Figure 7B: ERK



Lane Description:

ERK in primary peritoneal macrophages

Lane 1: Control

Lane 2: Treated with 35 μ M HY

Lane 3: Treat with LPS for 15 min

Lane 4: Treat with LPS and 35 μ M HY for 15 min

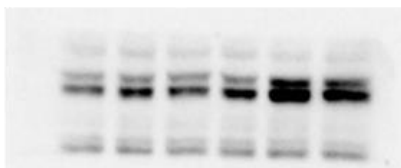
Lane 5: Treat with LPS for 30 min

Lane 6: Treat with LPS and 35 μ M HY for 30 min

Lane 7: marker (too weak)

Figure S10: The whole un-cropped western blots images of figure 7B.

Figure 7B: p-p38



Lane Description:

p-p38 in primary peritoneal macrophages

Lane 1: marker (too weak)

Lane 2: Control

Lane 3: Treated with 35 μ M HY

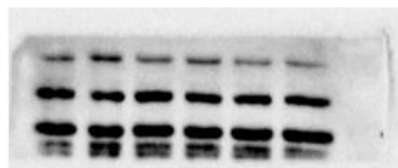
Lane 4: Treat with LPS for 15 min

Lane 5: Treat with LPS and 35 μ M HY for 15 min

Lane 6: Treat with LPS for 30 min

Lane 7: Treat with LPS and 35 μ M HY for 30 min

Figure 7B: p38



Lane Description:

p38 in primary peritoneal macrophages

Lane 1: Control

Lane 2: Treated with 35 μ M HY

Lane 3: Treat with LPS for 15 min

Lane 4: Treat with LPS and 35 μ M HY for 15 min

Lane 5: Treat with LPS for 30 min

Lane 6: Treat with LPS and 35 μ M HY for 30 min

Lane 7: marker (too weak)

Figure S11: The whole un-cropped western blots images of figure 7B.

Figure 7B: GAPDH



Lane Description:

GAPDH in primary peritoneal macrophages

Lane 1: marker for 35 KDa

Lane 2: Control

Lane 3: Treated with 35 μ M HY

Lane 4: Treat with LPS for 15 min

Lane 5: Treat with LPS and 35 μ M HY for 15 min

Lane 6: Treat with LPS for 30 min

Lane 7: Treat with LPS and 35 μ M HY for 30 min

Lane 8: marker for 35 KDa

Lane 9-14: Not appeared in the manuscript

Figure S12: The whole un-cropped western blots images of GAPDH for figure 7B.