SUPPLEMENTARY

Comparison of PPAR ligands as modulators of resolution of inflammation via influence on cytokines and oxylipins release in astrocytes

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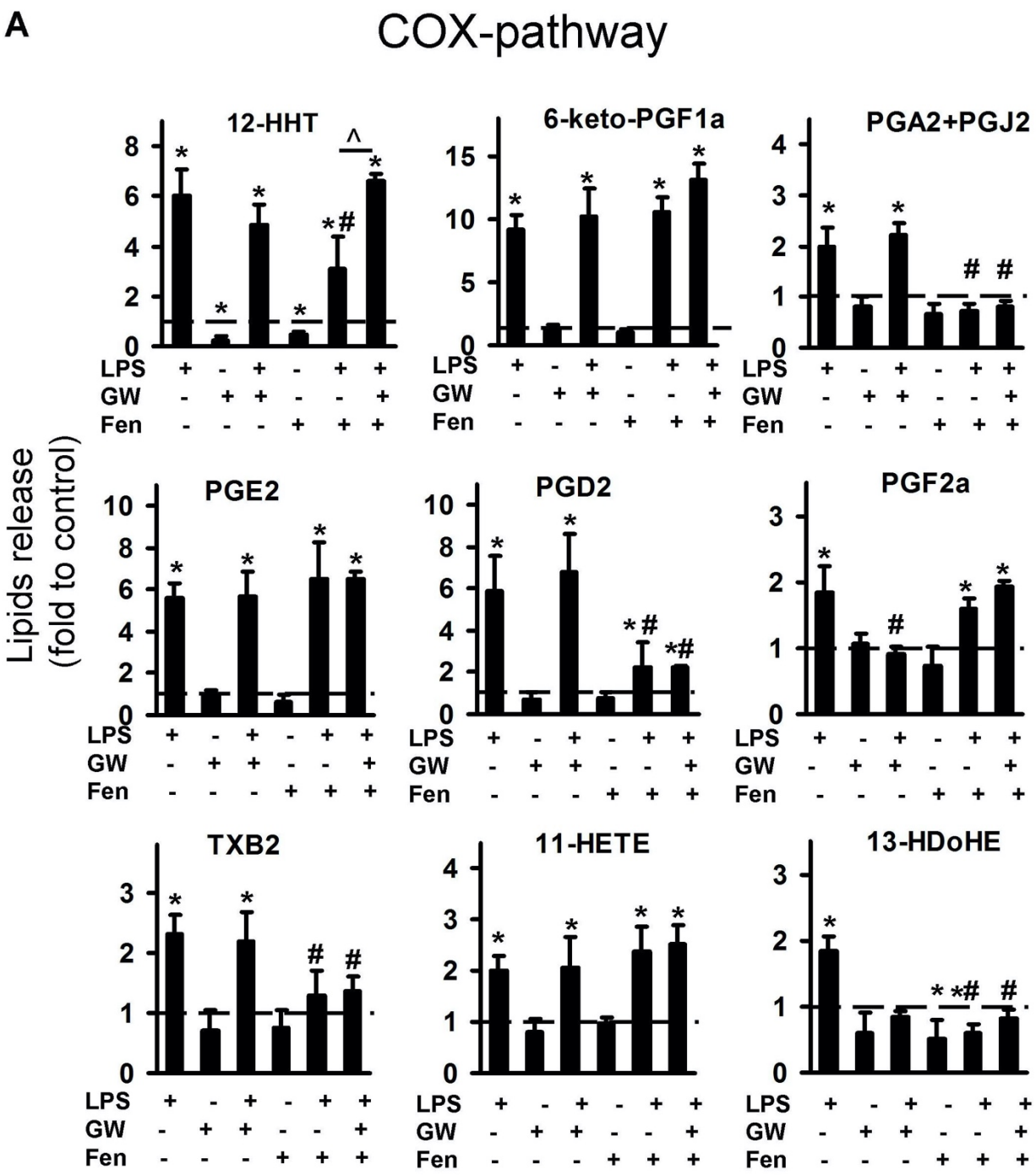
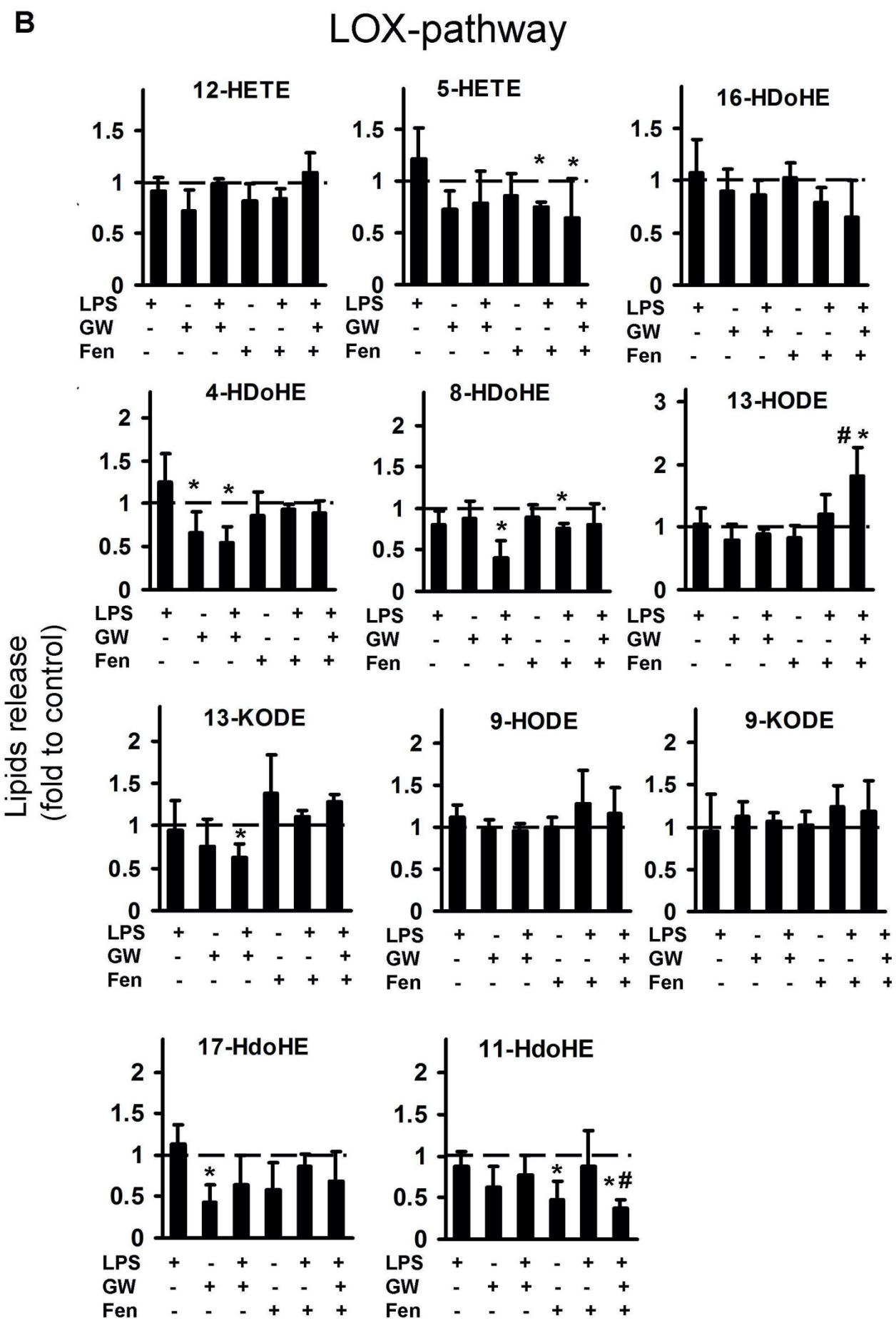

A
COX-pathway
Lipids release
(fold to control)
12-HHT
6-keto-PGF1a
PGA2+PGJ2
PGE2
PGD2
PGF2a
TXB2
11-HETE
13-HDoHE
LPS
GW
Fen


B
LOX-pathway
Lipids release
(fold to control)
12-HETE
5-HETE
16-HDoHE
4-HDoHE
8-HDoHE
13-HODE
13-KODE
9-HODE
9-KODE
17-HdoHE
11-HdoHE
LPS
GW
Fen

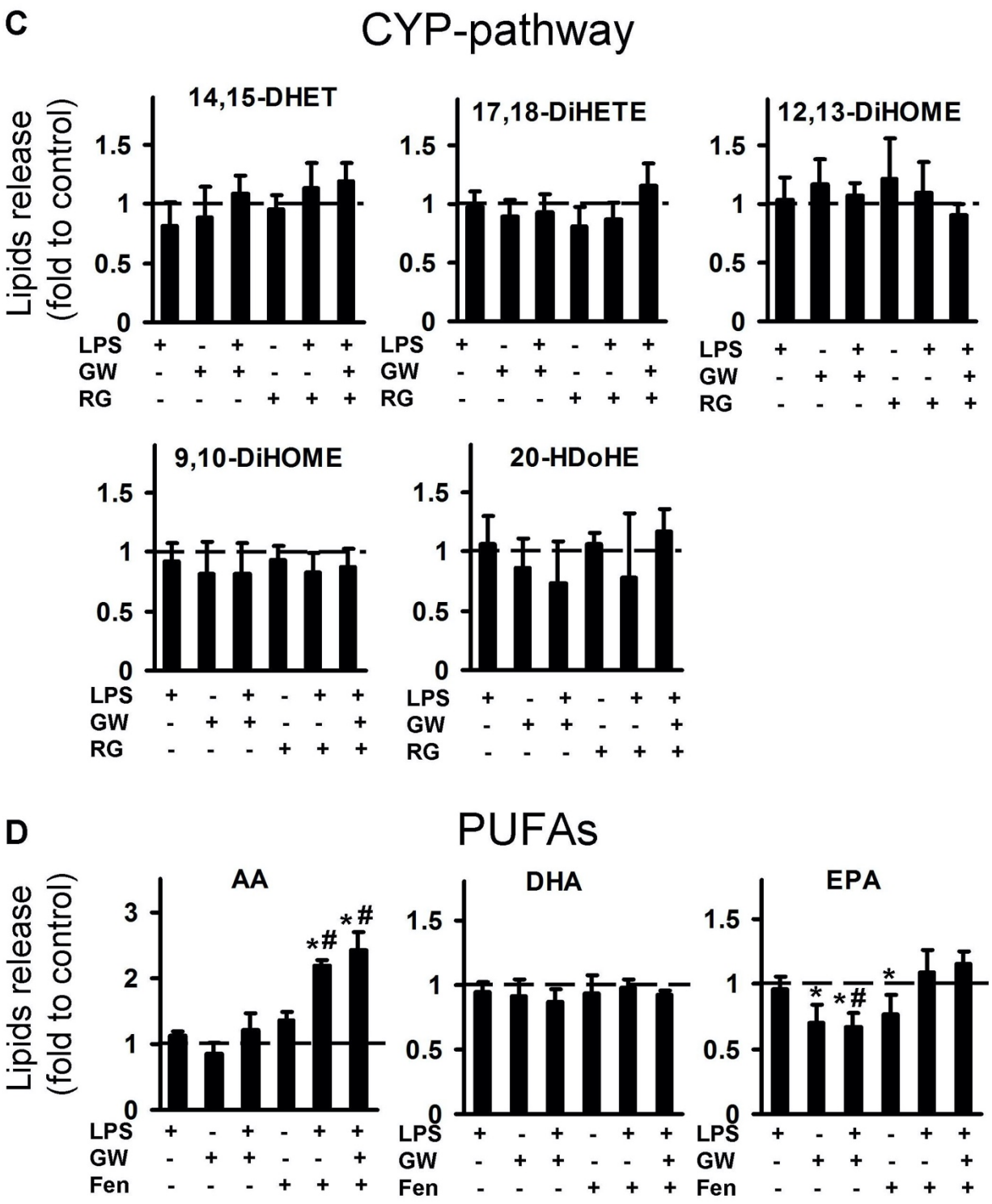
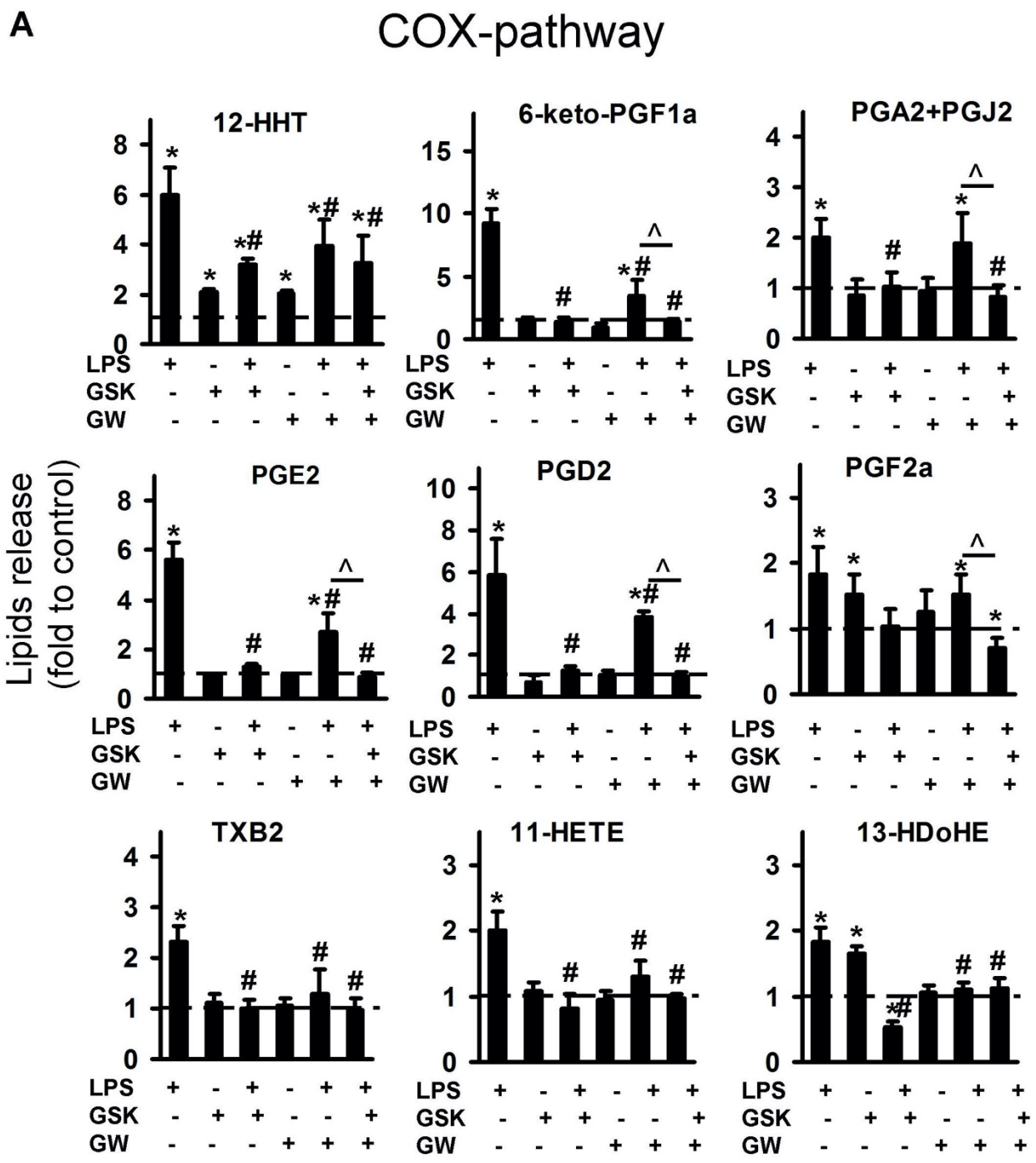
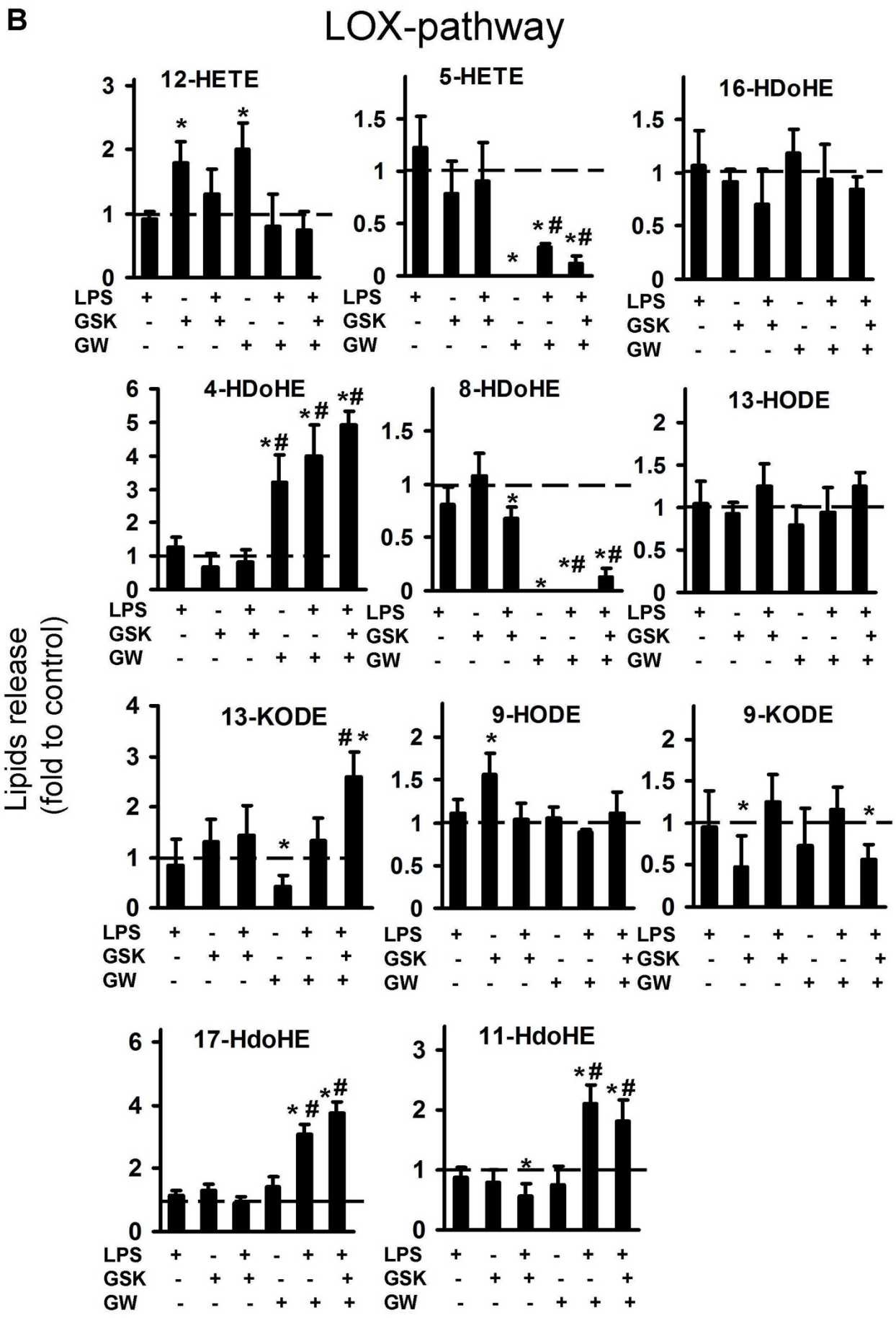


Figure S1. Effect of PPARa agonist Fenofibrate and antagonist GW6471 on the oxylipins release in the LPS-stimulated astrocytes. Primary rat astrocytes were pretreated for 30 min with GW6471 (GW6, 5 μM) or Fenofibrate (Fen, 50 μM) or in combination, and then stimulated with LPS (100 ng/mL) for 4 h. Concentrations of oxylipins in supernatants were measured using UPLC-MS/MS. The bars show relative amounts of COX-derived lipid mediators. Values represent the mean ± SEM from three independent experiments. *p<0.05, compared with the unstimulated cells, #p< 0.05, compared with the LPS-stimulated cells, ^p<0.05, compared with the indicated bars.


A
COX-pathway
Lipids release (fold to control)
12-HHT
6-keto-PGF1a
PGA2+PGJ2
PGE2
PGD2
PGF2a
TXB2
11-HETE
13-HDoHE
LPS
GSK
GW


B
LOX-pathway
Lipids release
(fold to control)
12-HETE
5-HETE
16-HDoHE
4-HDoHE
8-HDoHE
13-HODE
13-KODE
9-HODE
9-KODE
17-HdoHE
11-HdoHE
LPS
GSK
GW

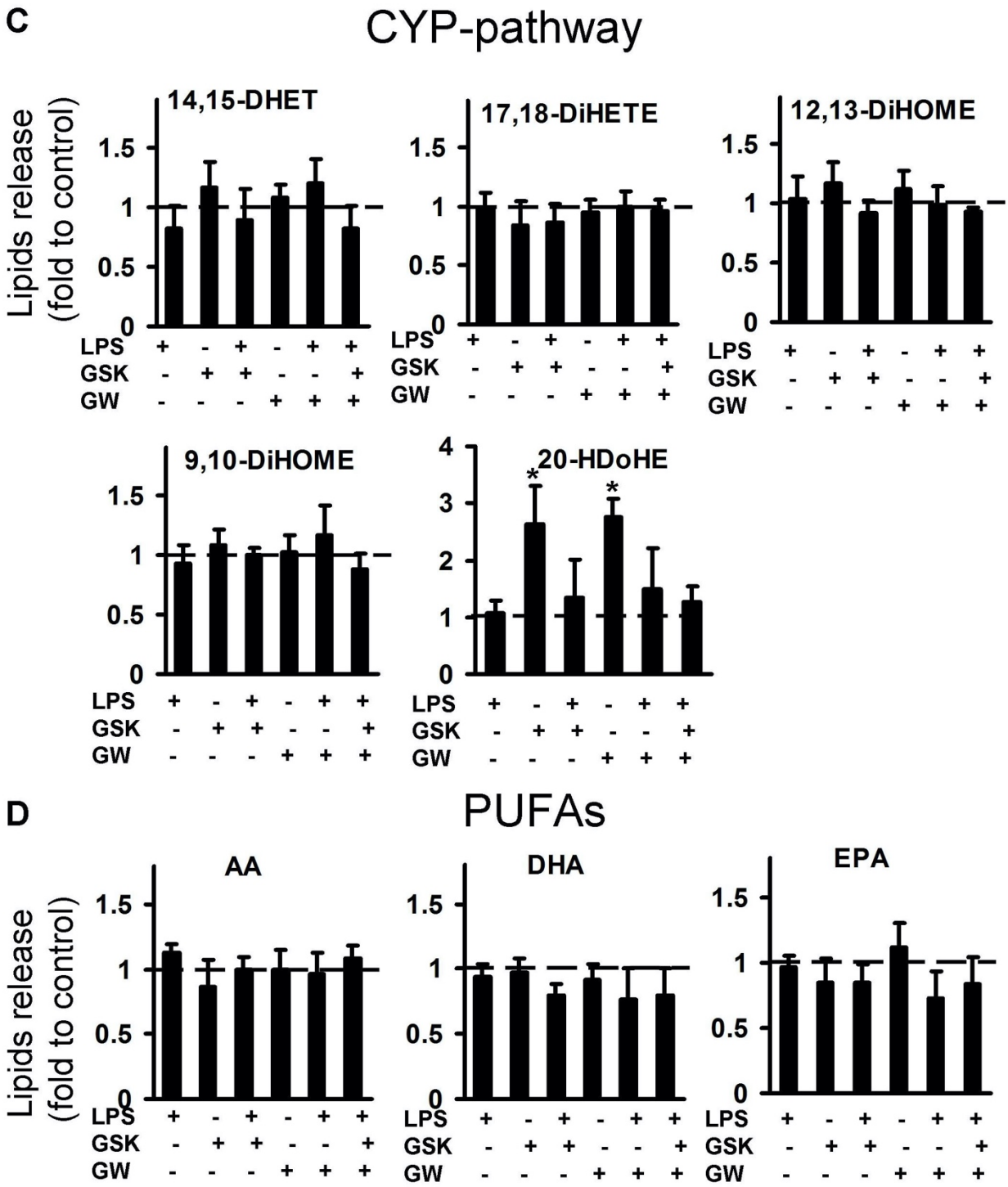
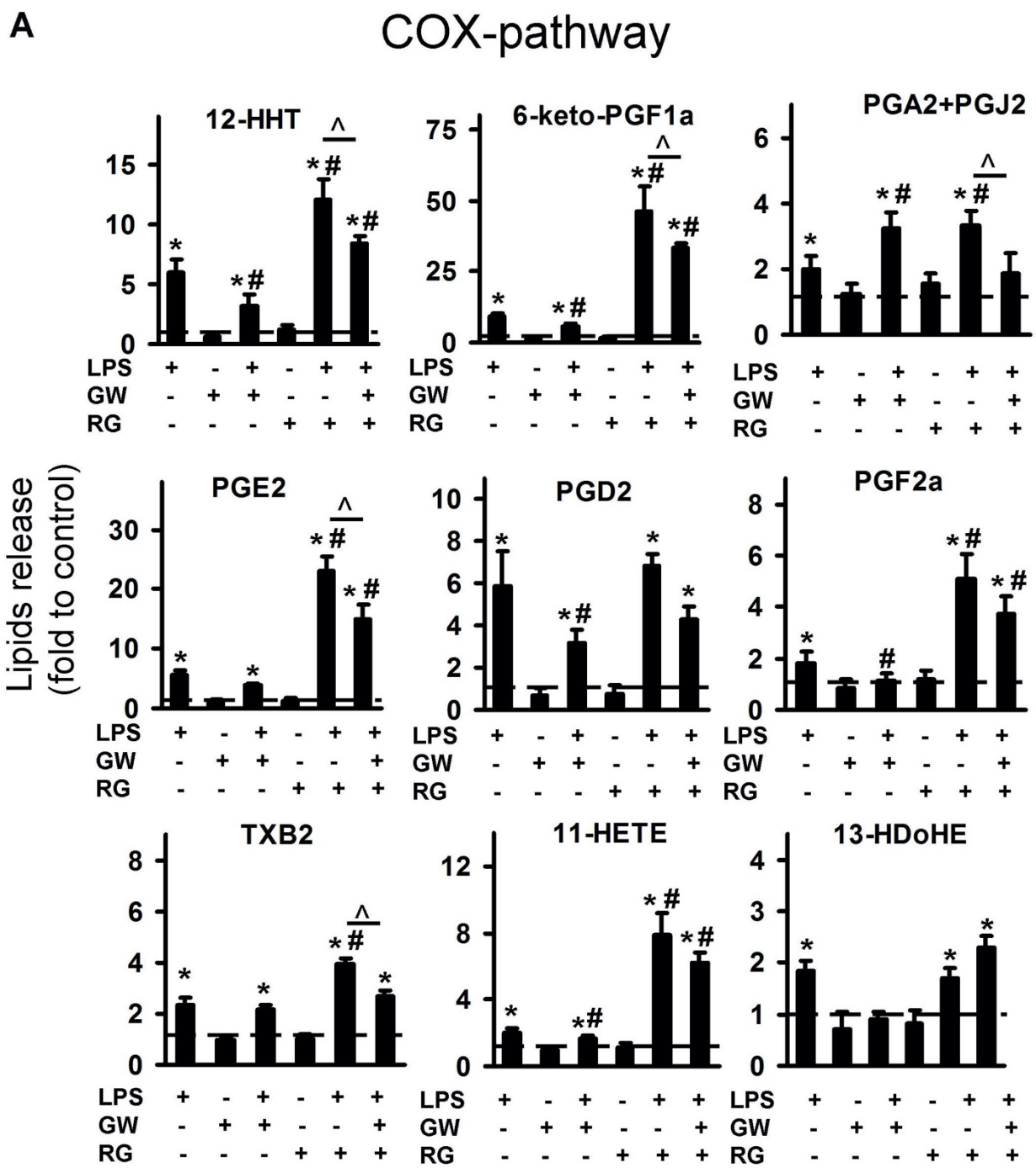
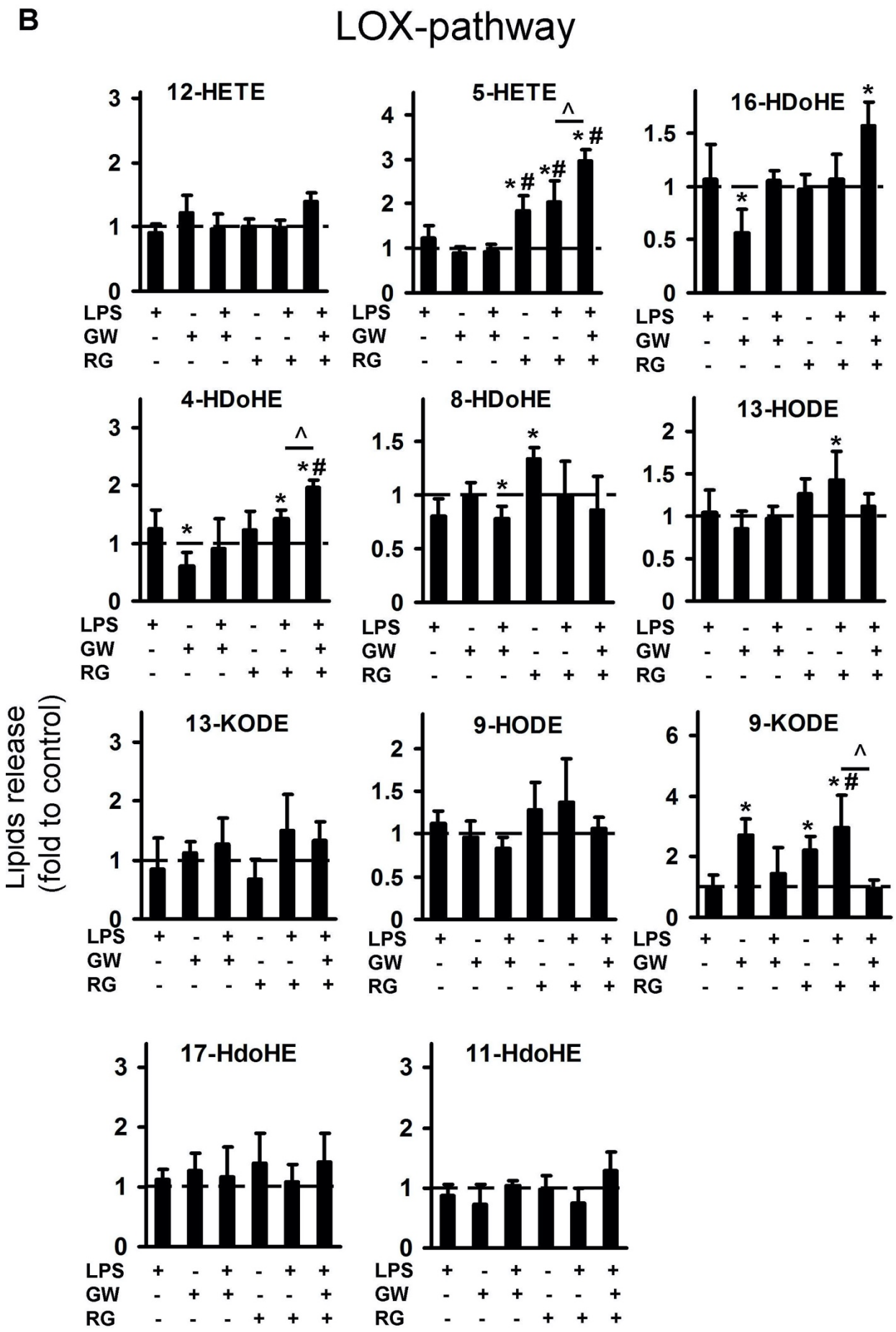


Figure S2. Effect of PPARb agonist GW501516 and antagonist GSK0660 on the oxylipins release in the LPS-stimulated astrocytes. Primary rat astrocytes were pretreated for 30 min with GSK0660 (GSK, 5 μM) or GW501516 (GW5, 25 μM) or in combination, and then stimulated with LPS (100 ng/mL) for 4 h. Concentrations of oxylipins in supernatants were measured using UPLC-MS/MS. The bars show relative amounts of COX-derived lipid mediators. Values represent the mean ± SEM from three independent experiments. *p<0.05, compared with the unstimulated cells, #p< 0.05, compared with the LPS-stimulated cells, ^p<0.05, compared with the indicated bars.


A
COX-pathway
Lipids release (fold to control)
12-HHT
6-keto-PGF1a
PGA2+PGJ2
PGE2
PGD2
PGF2a
TXB2
11-HETE
13-HDoHE
LPS
GW
RG


B
LOX-pathway
Lipids release (fold to control)
12-HETE
5-HETE
16-HDoHE
4-HDoHE
8-HDoHE
13-HODE
13-KODE
9-HODE
9-KODE
17-HdoHE
11-HdoHE
LPS
GW
RG

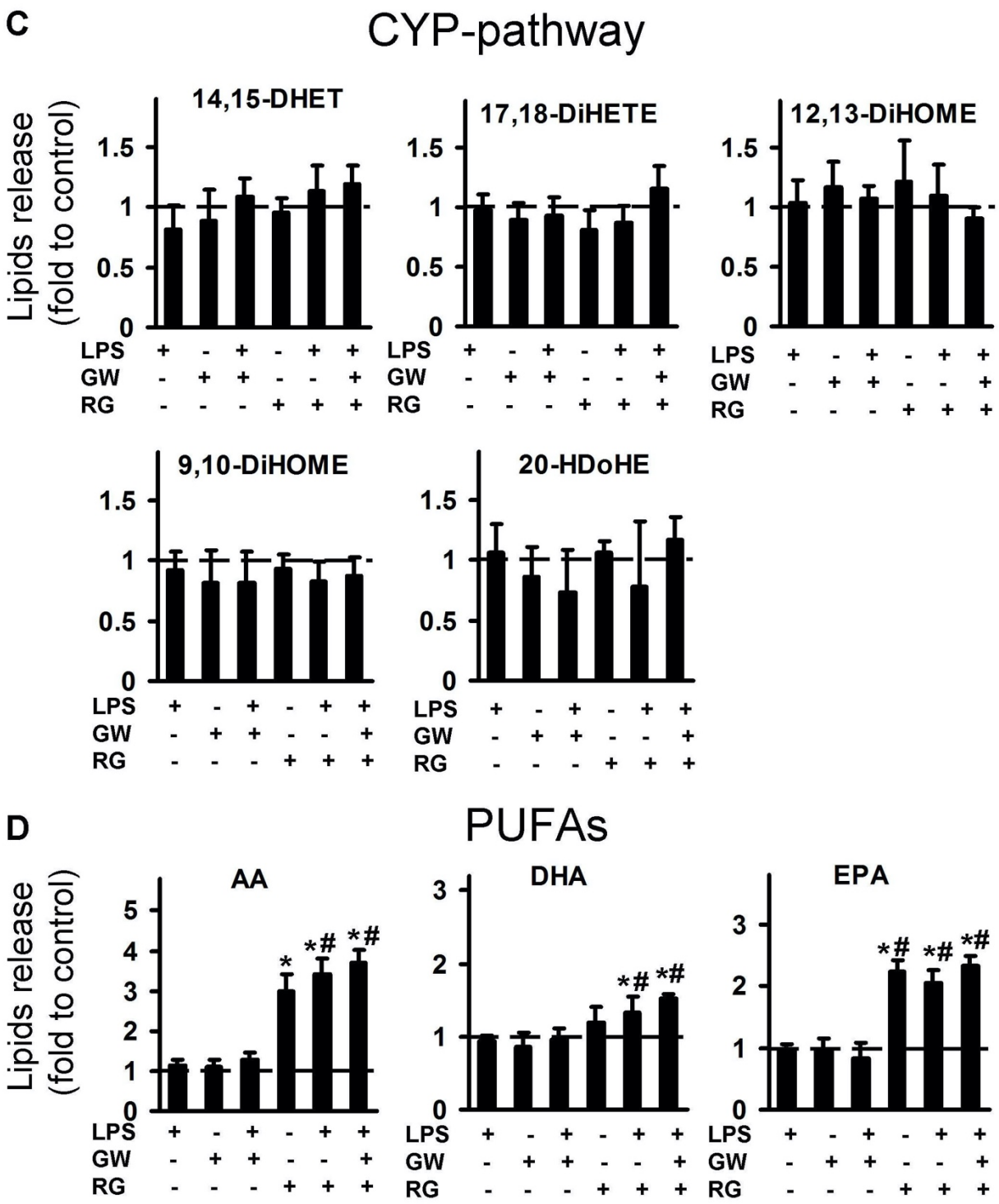


Figure S3. Effect of PPARg agonist rosiglitazone and antagonist GW9662 on the oxylipins release in the LPS-stimulated astrocytes. Primary rat astrocytes were pretreated for 30 min with GW9662 (GW9, 5 μM) or rosiglitazone (RG, 20 μM) or in combination, and then stimulated with LPS (100 ng/mL) for 4 h. Concentrations of oxylipins in supernatants were measured using UPLC-MS/MS. The bars show relative amounts of COX-derived lipid mediators. Values represent the mean ± SEM from three independent experiments. *p<0.05, compared with the unstimulated cells, #p< 0.05, compared with the LPS-stimulated cells, ^p<0.05, compared with the indicated treatment.