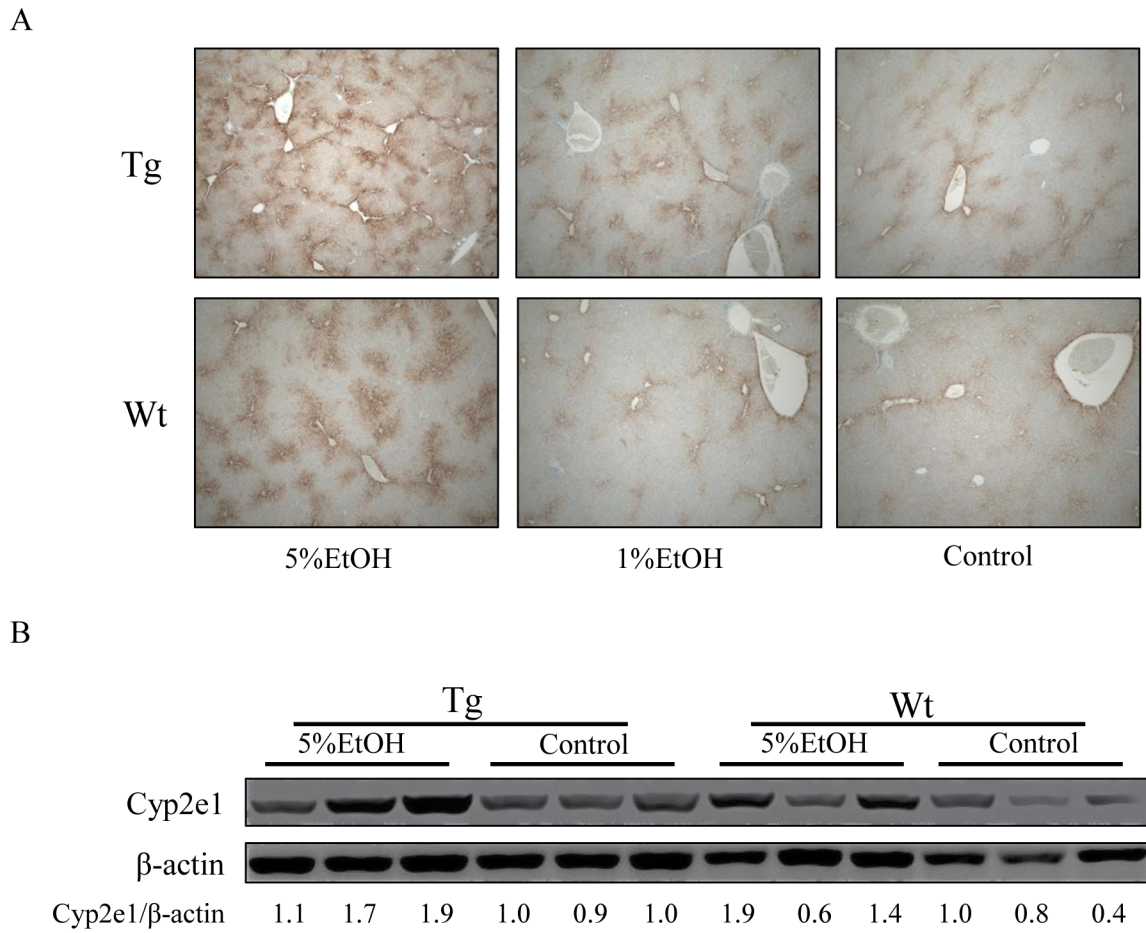
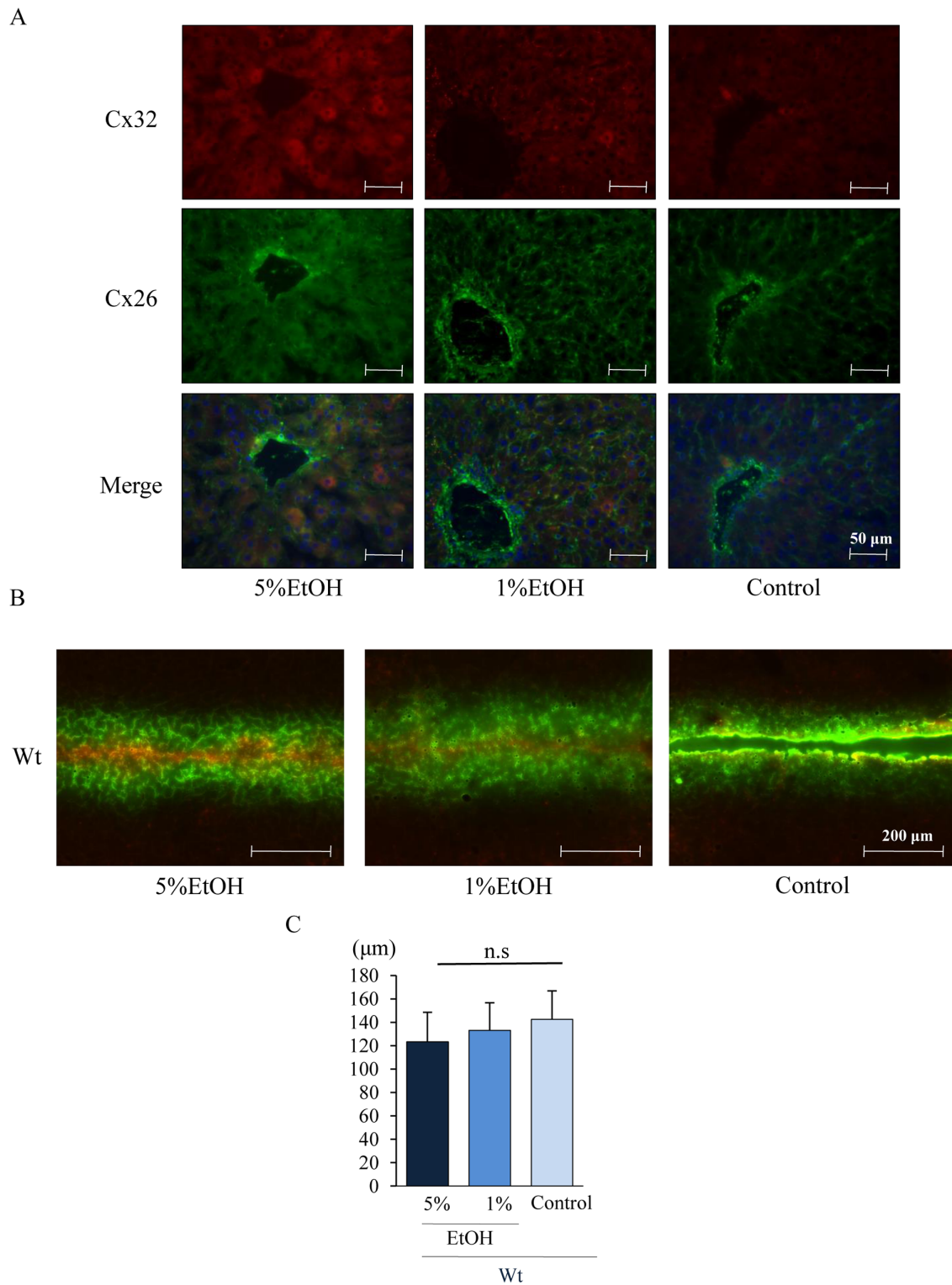


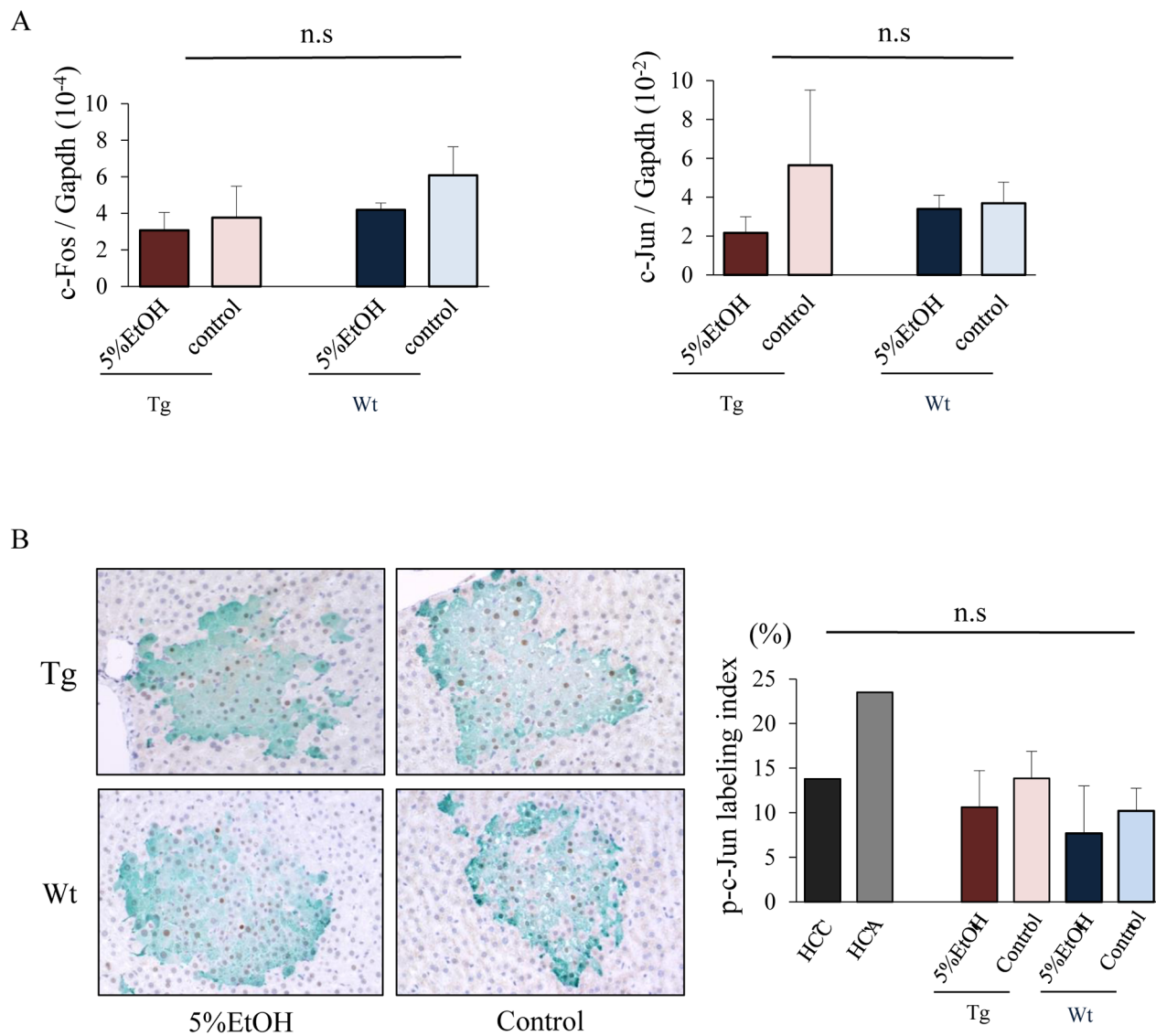
SUPPLEMENTARY FIGURES AND TABLE



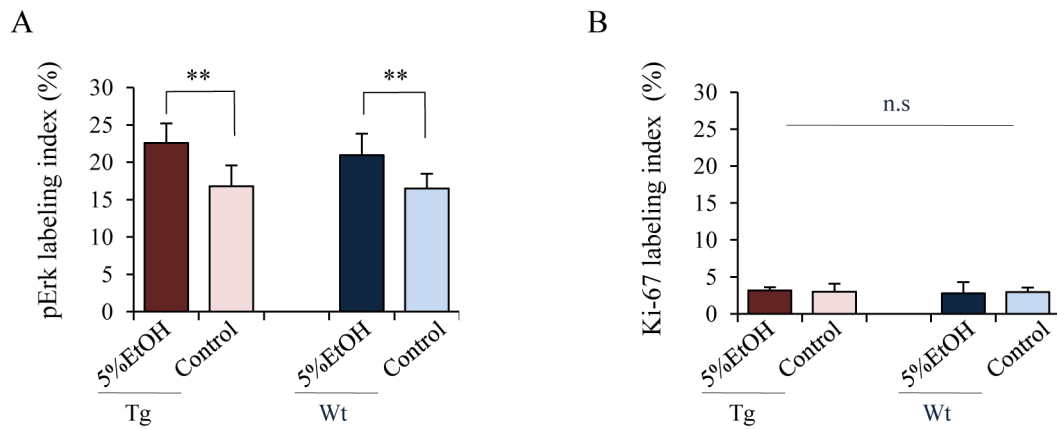
**Supplementary Figure S1: EtOH intake induces Cyp2e1 expression in centrilobular region and higher expression in Tg rats as compared to Wt rats. Immunohistochemical staining A. and western blotting B. for Cyp2e1.**



**Supplementary Figure S2: GJIC capacity tended to decrease by EtOH intake but no significant difference was observed in Wt rats.** **A.** Immunofluorescence staining for Cx32 (red) and Cx26 (green) in livers of Tg rats. **B.** Spread of Lucifer yellow through gap junction. Merged pictures of Lucifer yellow (green) and rhodamine-dextran (red), and **C.** distance of Lucifer yellow spread (µm) in Wt rats. Data are presented as mean ± SD,  $n = 5$  per group.

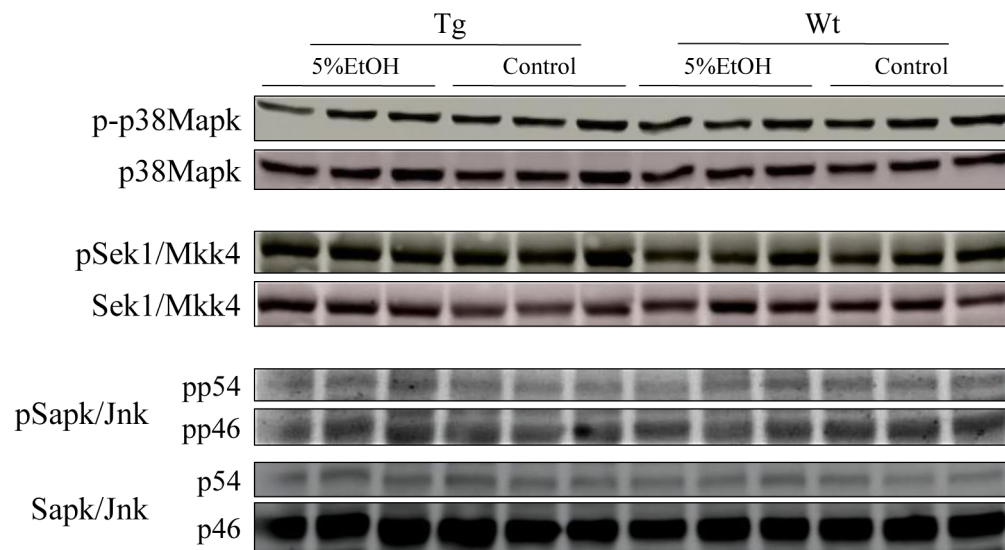


**Supplementary Figure S3: AP-1 (c-Fos and c-Jun complex) expression was not altered by EtOH intake in both Tg and Wt rats.** **A.** mRNA expression levels of c-Fos and c-Jun detected by quantitative RT-PCR. **B.** Immunohistochemical staining for p-c-Jun (brown) and GST-P (green). The percentage of p-c-Jun positive hepatocytes in HCC, HCA and GST-P positive foci in each group. Data are presented as mean  $\pm$  SD,  $n = 4-5$  per group.



**Supplementary Figure S4: EtOH enhanced pErk expression but did not altered Ki-67 labeling index in sinusoidal lining cells.** Percentage of pErk **A.** and Ki-67 **B.** in sinusoidal lining cells. Data are presented as mean  $\pm$  SD,  $n = 5$  per group, at least 1,000 sinusoidal lining cells per rats. \*\*:  $P < 0.01$





**Supplementary Figure S5: The protein expression level of various components of the MAPK signaling pathway in Tg and Wt rats.** Western blotting for p-p38Mapk (Thr180/Tyr182), p38Mapk, pSek1/Mkk4 (Ser80), Sek1/Mkk4, pSapk/Jnk (Thr183/Tyr185) and Sapk/Jnk.

**Supplementary Table S1: Serum levels of hepatic enzymes, lipids and albumin in Tg and Wt rats.**

		No.	Alb(g/dl)	ALP(U/L)	AST(U/L)	ALT(U/L)	$\gamma$ GTP(U/L)	LDH(U/L)	T-chol(mg/dl)
Tg	5%EtOH	12	4.1 $\pm$ 0.2	481 $\pm$ 108	63.3 $\pm$ 5.6	42.5 $\pm$ 7.5	1.6 $\pm$ 1.2	315 $\pm$ 183	60.1 $\pm$ 7.8
	1%EtOH	11	4.1 $\pm$ 0.1	498 $\pm$ 151	63.7 $\pm$ 6.3	45.7 $\pm$ 6.1	1.7 $\pm$ 0.5	320 $\pm$ 176	69.4 $\pm$ 8.1
	Control	12	4.0 $\pm$ 0.1	510 $\pm$ 116	70.5 $\pm$ 10.4	54.1 $\pm$ 13.2	1.2 $\pm$ 0.1	307 $\pm$ 120	65.3 $\pm$ 6.7
Wt	5%EtOH	12	4.1 $\pm$ 0.1	635 $\pm$ 560	67.1 $\pm$ 29.7	61.9 $\pm$ 83.1	1.5 $\pm$ 1.5	247 $\pm$ 152	65.6 $\pm$ 13.1
	1%EtOH	12	4.1 $\pm$ 0.1	491 $\pm$ 148	67.9 $\pm$ 12.4	48.4 $\pm$ 11.0	0.8 $\pm$ 0.8	272 $\pm$ 134	67.8 $\pm$ 9.0
	Control	12	4.1 $\pm$ 0.1	541 $\pm$ 204	66.5 $\pm$ 8.1	44.8 $\pm$ 11.0	0.8 $\pm$ 0.4	374 $\pm$ 165	66.4 $\pm$ 12.7

Tg, connexin32 dominant negative transgenic; Wt, wild-type

Alb, Plasma albumin; ALP, alkaline phosphatase; AST, aspartate aminotransferase; ALT, alanine aminotransferase;  $\gamma$ GTP, gamma-glutamyl transpeptidase; LDH, lactate dehydrogenase; T-chol, total cholesterol