

## Supplementary information

### **Notch Signaling Coordinates Progenitor Cell-Mediated Biliary Regeneration Following Partial Hepatectomy**

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**Supplementary Table S1: Primer sequence for genotyping**

Name	Forward/Reverse Sequence
Alb-Cre	5'-GCAAACATACGCAAGGGATT-3', 5'-AGGCAAATTTTGGTGTACGG-3'
Mx1-Cre	5'-CCGGTCGATGCAACGAGTGATGAGG-3', 5'-GCCTCCAGCTTGCATGATCTCCGG-3'
RBPJ <sup>flox/+</sup>	5'-GTTCTTAACCTGTTGGTCGGAACC-3', 5'-GCTTGAGGCTTGATGTTCTGTTCTGTATTGC-3', 5'-GCAATCCATCTTGTTC AATGGCC-3'
Rosa26 <sup>laz/+</sup>	5'-GGAGCGGGAGAAATGGATATG-3', 5'-AAAGTCGCTCTGAGTTGTTAT-3', 5'-GCGAAGAGTTTGTCTCAACC-3'
Rosa26 <sup>mTm</sup> G/+	5'-CTCTGCTGCCTCCTGGCTTCT-3', 5'-CGAGGCGGATCACAAGCAATA-3', 5'-TCAATGGGCGGGGGTTCGT-3'

**Supplementary Table S2: Primer sequence for PCR.**

Name	Forward/Reverse Sequence
$\beta$ -Actin	5'-CATCCGTA AAGACCTCTATGCCAA C-3', 5'-ATG GAG CCA CCG ATC CAC A-3'
Notch1	5'-GATGGCCTCAATGGGTACAAG-3', 5'-TCGTTGTTGTTGATGTCACAGT-3' 5'-GATGGCCTCAATGGGTACAAG-3', 5'-TCGTTGTTGTTGATGTCACAGT-3'
Notch2	5'-GAGAAAAACCGCTGTCAGAATGG-3', 5'-GGTGGAGTATTGGCAGTCCTC-3' 5'-GAGAAAAACCGCTGTCAGAATGG-3', 5'-GAGAAAAACCGCTGTCAGAATGG-3'
Notch3	5'-AGTGCCGATCTGGTACA AACTT-3', 5'-CACTACGGGGTTCTCACACA-3' 5'-AGTGCCGATCTGGTACA AACTT-3',

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5'-CACTACGGGGTTCTCACACA-3'  
 Notch4 5'-GAACGCGACATCAACGAGTG-3',  
 5'-GGAACCCAAGGTGTTATGGCA-3'  
 5'-CACTACGGGGTTCTCACACA-3',  
 5'-CACTACGGGGTTCTCACACA-3'  
 RBPJ 5'-AGTTGCACAGAAGTCTTACGG-3',  
 5'-CCTATTCCAATAAACGCACAGGG-3'  
 5'-AGTTGCACAGAAGTCTTACGG-3',  
 5'-AGTTGCACAGAAGTCTTACGG-3'  
 Hes1 5'-AAA GAC GGC CTC TGA GCA C-3',  
 5'-GGT GCT TCA CAG TCA TTT CCA-3'  
 5'-AGTTGCACAGAAGTCTTACGG-3',  
 5'-AGTTGCACAGAAGTCTTACGG-3'  
 Hey1 5'-CCGACGAGACCGAATCAATAAC-3',  
 5'-TCAGGTGATCCACAGTCATCTG-3'  
 5'-AGTTGCACAGAAGTCTTACGG-3',  
 5'-TCAGGTGATCCACAGTCATCTG-3'  
 CK7 5'-ACGGATGGGGCTAACTTACAA-3',  
 5'-AGTCCTCGATTTGCTCGAACT-3'  
 CK19 5'-G TTCAGTACGCATTGGGTCAG-3',  
 5'-GAGGACGAGGTCACGAAGC-3'  
 Alb 5'-CAAGAGTGAGATCGCCCATCG-3',  
 5'-T TACTTCCTGCACTAATTTGGCA-3'  
 AFP 5'-AGCTTCCACGTTAGATTCCTCC-3',  
 5'-ACAAACTGGGTAAAGGTGATGG-3'  
 Chip for 5'-CCCACATTTGTTATTTGAGCCC-3',  
 RBPJ-Y 5'-CCTGAACCATCCATCTCATGTTG-3'  
 AP 5'-ACATGAGATGGATGGTTCAGGG-3',  
 5'-AGTGAGCACAGGTGAAGGTCAGAG-3'

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**Supplementary Table S3 Frequency of different genotyping.**

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	Litter	AlbCre- RBPJ fl/+	Alb Cre- RBPJ fl/fl	Alb Cre+ RBPJ fl/+	AlbCre+ RBPJ fl/fl
Number	30	62	58	64	24
Frequency	/	0.298	0.279	0.308	0.115

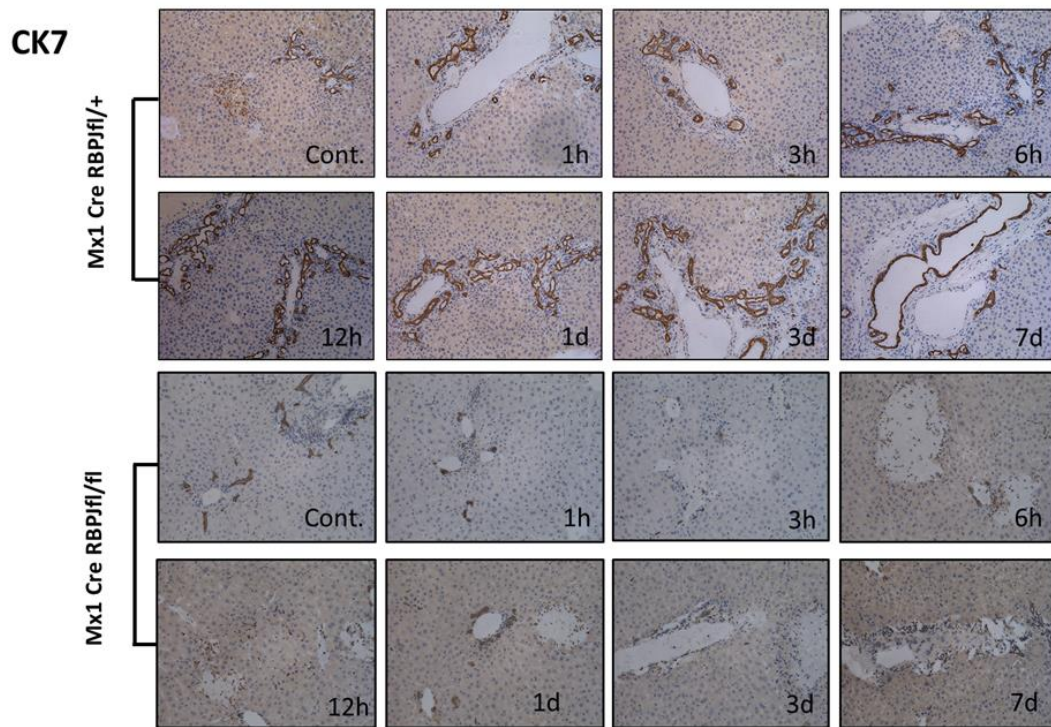
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**Supplementary Table S4 Frequency of different genotyping.**

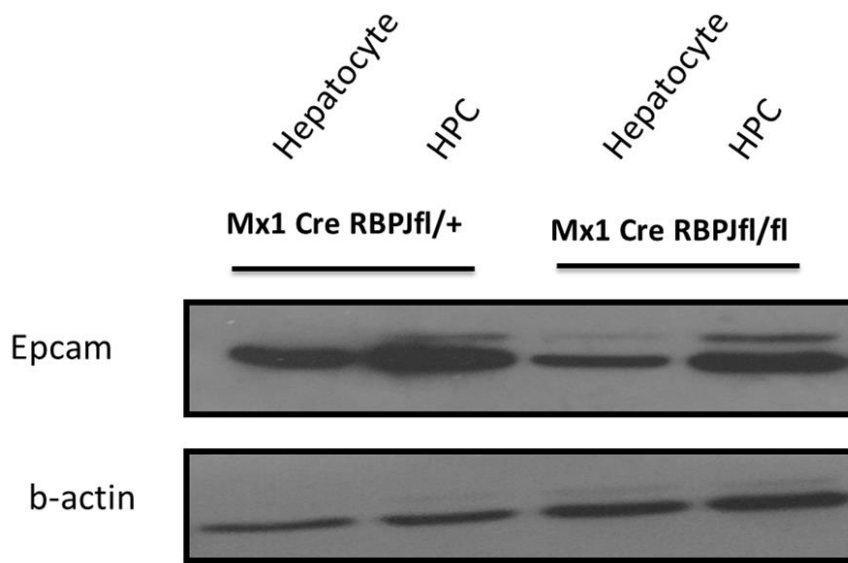
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	Litter	Mx1Cre- RBPJ fl/+	Mx1 Cre- RBPJ fl/fl	Mx1 Cre+ RBPJ fl/+	Mx1 Cre+ RBPJ fl/fl
Number	42	70	68	65	66
Frequency	/	0.260	0.253	0.242	0.245

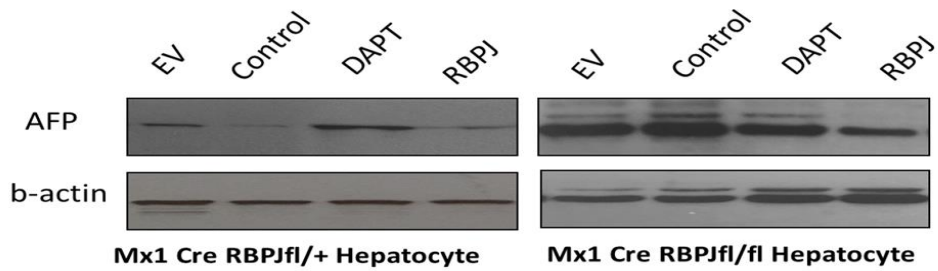
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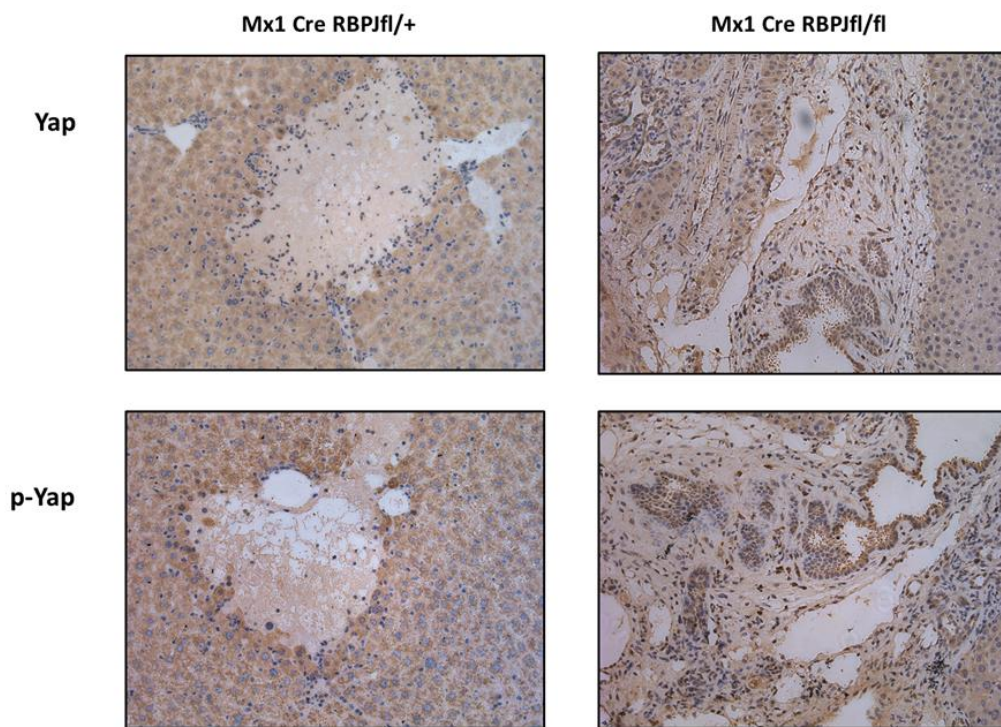
**Supplementary Figure S1: CK7 expression in different time points after PHx. In different time points (1hr, 3hr, 6hr, 12hr, 1day , 3days and 7days), IHC staining for CK7 was performed in Mx1 Cre RBPJ<sup>flox/+</sup> and Mx1Cre RBPJ<sup>flox/flox</sup>.**



**Supplementary Figure S2: Western blotting of EPCAM in HPC and hepatocytes.**



**Supplementary Figure S3: Western blotting of AFP in hepatocytes isolated from Mx1 Cre RBPJ<sup>flx/+</sup> and Mx1Cre RBPJ<sup>flx/flx</sup> mice.**



**Supplementary Figure S4: IHC staining of YAP and P-YAP in Mx1 Cre RBPJ<sup>fl/+</sup> and Mx1Cre RBPJ<sup>fl/fl</sup> mice.**