**Supplementary Information**



Figure S1. Double immunostaining for H2BGFP and albumin in the livers of *H11-albumin-rtTA/TetO-H2BGFP* transgenic mice that were treated with 1 mg/ml Dox for two days. Enlarged images in boxed areas are shown below the original images. White arrows show representative GFP and albumin double staining positive cells; yellow arrows show representative GFP and albumin negative cells. GFP staining (green); albumin staining (red); DAPI nuclear counterstaining of DNA (blue). Scale bar: 50 μm.

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**Figure S2.** Liver dissected from *H11 albumin-rtTA/TetOH2BGFP* double-transgenic mice treated for 0 h (left panel) or 48 h with 1 mg/ml Dox (right panel) were analyzed by HE staining. Scale bar: 20 μm.

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**Figure S3.** Light images (top panels) and whole mount fluorescence microscopy (bottom panels) images of the tdTomato protein in the *H11-albumin-rtTA/TetO-Cre/Ai14* triple-transgenic mice that were treated for 0, 3, or 5 days with 1 mg/ml Dox, as well as in the *albumin-Cre/A14* mice. Scale bar: 2 mm.

|  |  |  |
| --- | --- | --- |
| Plasmid element | Primer sequence 5’ -3’ | Amplicon |
| H11 left HR-F | TACGACTCACTATAGGGCGAATTGTGGGCCTTGCCAAATGGTTT | 1371bp |
| H11 left HR-R | GAAAACTGAGAGAAGCAGAAGCTGATAAGTGCACTAGTGTTCCT |
| albumin-F | AAGGAACACTAGTGCACTTATCAGCTTCTGCTTCTCTCAGTTTTC | 2241bp |
| albumin-R | TTGCTCTTGTCCAGTCTAGACATCCCGGGGTTGATAGGAAAGGT |  |
| rtTA-advanced-F  | CACCTTTCCTATCAACCCCGGGATGTCTAGACTGGACAAGAGCAA | 747bp |
| rtTA-advanced-R | TGGCTGGCAACTAGAAGGCACAGTTACCCGGGGAGCATGTCAAG |  |
| BGH-polyA-F | F:CCTTGACATGCTCCCCGGGTAACTGTGCCTTCTAGTTGCCAGCCA | 225bp |
| BGH-polyA-R | ACCACTGTTGGCTCAGCAGACACCCATAGAGCCCACCGCATCCCC |  |
| H11 right HR-F | GGGGATGCGGTGGGCTCTATGGGTGTCTGCTGAGCCAACAGTGG | 1377bp |
| H11 right HR-R | ACTAAAGGGAACAAAAGCTGGCTTACAGCCAAAGACTTTTTCTCC |  |
| sgRNA | GAACACTAGTGCACTTATCCTGG |  |

**Table S1.Sequences of donor plasmid *H11-albumin-rtTA* construction primers**

|  |  |  |
| --- | --- | --- |
| Name | Primer Sequence 5’ -3’ | Amplicon |
| Up-F1  | CGTACCAGCCAAAGGAGCAGC | 1484bp |
| Up-R1 | GTGGAGCAATGTTGGTAGGG |  |
| Down-F2 | GCCTTCCTTTTCGGCCTG | 1891bp |
| Down-R2 | GGCATAGTCTACCACATCCACTGAGG |  |

**Table S2. Sequences of *H11-albumin-rtTA* transgenic mouse genotyping primers**

|  |  |
| --- | --- |
| Mice genotyping | Primer sequence 5’ -3’ |
| Albumin-Cre-F | GATGGCAAACATACGCAAGGGAT |
| Albumin-Cre-R | TTCTTGCGAACCTCATCACTC |
| TetO-Cre-F  | TGCTGTTTCACTGGTTATGCGG |
| TetO-Cre-R  | TTGCCCCTGTTTCACTATCCAG |
| TetO-H2BGFP-F  | AAGTTCATCTGCACCACCG |
| TetO-H2BGFP-R | TCCTTGAAGAAGATGGTGCG |
| Ai14-F | GGCATTAAAGCAGCGTATCC |
| Ai14-R | CTGTTCCTGTACGGCATGG |
| H11-albumin-rtTA-F  | CAGCCTTCCTTTTCGGCCTG |
| H11-albumin-rtTA-R | GGCATAGTCTACCACATCCACTGAGG |

**Table S3. Sequences of transgenic mouse genotyping primers**

|  |  |
| --- | --- |
| qPCR | Primer sequence 5’ -3’ |
| H2BGFP-F | AGTGCTTCAGCCGCTACC |
| H2BGFP-R | GAAGATGGTGCGCTCCTG |
| Gapdh-F | AAGCCCATCACCATCTTCCAG |
| Gapdh-R | AGGGGCCATCCACAGTCTTCT |

**Table S4. Sequences of qRT-PCR primers**