

**Supporting information for**  
**A dual-regulation inducible switch system for microRNA detection and**  
**cell type-specific gene activation**

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Supplementary Table 1. DNA sequence information of plasmids used in this study

<p>LacI-HA-3xT21</p> <p>ATGGGCTACGTAACGTTATACGATGTCGCAGAGTATGCCGGTGTCTCTTATCAGACCGT TTCCCGCGTGGTGAACCAGGCCAGCCACGTTTCTGCGAAAACGCGGGAAAAAGTGGA AGCGGCGATGGCGGAGCTGAATTACATTCCCAACCGCGTGGCACAACAACCTGGCGGG CAAACAGTCGTTGCTGATTGGCGTTGCCACCTCCAGTCTGGCCCTGCACGCGCCGTC GCAAATTGTCGCGGCGATTAATCTCGCGCCGATCAACTGGGTGCCAGCGTGGTGGT GTCGATGGTAGAACGAAGCGGCGTCAAGCCTGTAAAGCGGCGGTGCACAATCTTCT CGCGCAACGCGTCAGTGGGCTGATCATTAACTATCCGCTGGATGACCAGGATGCCATT GCTGTGGAAGCTGCCTGCACTAATGTTCCGGCGTTATTTCTTGATGTCTCTGACCAGA CACCCATCAACAGTATTATTTCTCCCATGAAGACGGTACGCGACTGGGCGTGGAGCA TCTGGTCGCATTGGGTCACCAGCAAATCGCGCTGTTAGCGGGCCCATTAAGTTCTGTC TCGGCGCGTCTGCGTCTGGCTGGCTGGCATAAATATCTCACTCGCAATCAAATTCAGC CGATAGCGGAACGGGAAGGCGACTGGAGTGCCATGTCCGGTTTTCAACAAACCATGC AAATGCTGAATGAGGGCATCGTTCCTACTGCGATGCTGGTTGCCAACGATCAGATGGC GCTGGGCGCAATGCGCGCCATTACCGAGTCCGGGCTGCGCGTTGGTGCGGATATCTC GGTAGTGGGATACGACGATACCGAAGACAGCTCATGTTATATCCCGCCGTTAACCACCA TCAAACAGGATTTTCGCCTGCTGGGGCAAACCAGCGTGGACCGCTTGCTGCAACTCT CTCAGGGCCAGGCGGTGAAGGGCAATCAGCTGTTGCCCGTCTCACTGGTGAAGAA AAACCACCCTGGCGCCCAATACGCAAACCGCCTCTCCCCGCGCGTTGGCCGATT TAATGCAGCTGGCACGACAGGTTTCCGACTGGAAAGCGGGCAGGAATCCCTAAGA AGAAGAGGAAGTTCTCGAGTACCCATACGATGTTCCAGATTACGCTTGAGAATTCACG CGTCAACATCAGTCTGATAAGCTATCAACATCAGTCTGATAAGCTATCAACATCAGTCTG ATAAGCTA</p>
<p>LacO2-Fluc</p> <p>AATTGTGAGCGCTCACAATCCCACAGTCGACCCTAGGTTGTGGAATTGTGAGCGCTC ACAATTGAATTCACGCGTGGTACCTCTAGAGCCACCATGGCCGATGCTAAGAACATTA AGAAGGGCCCTGCTCCCTTCTACCCTCTGGAGGATGGCACCGCTGGCGAGCAGCTG CACAAGGCCATGAAGAGGTATGCCCTGGTGCCTGGCACCATTCCTTACCGATGC CCACATTGAGGTGGACATCACCTATGCCGAGTACTTCGAGATGTCTGTGCGCCTGGC CGAGGCCATGAAGAGGTACGGCCTGAACACCAACCACCGCATCGTGGTGTGCTCTG AGAACTCTCTGCAGTTCTTCATGCCAGTGCTGGGCGCCCTGTTTCATCGGAGTGGCCG TGGCCCCTGCTAACGACATTTACAACGAGCGCGAGCTGCTGAACAGCATGGGCATTT CTCAGCCTACCGTGGTGTTCGTGTCTAAGAAGGGCCTGCAGAAGATCCTGAACGTG CAGAAGAAGCTGCCTATCATCCAGAAGATCATCATCATGGACTCTAAGACCGACTAC CAGGGCTTCCAGAGCATGTACACATTTCGTGACATCTCATCTGCCTCCTGGCTTCAAC GAGTACGACTTCGTGCCAGAGTCTTTCGACAGGGACAAAACCATTGCCCTGATCATG AACAGCTCTGGGTCTACCGCCTGCCTAAGGGCGTGGCCCTGCCTCATCGCACCGC CTGTGTGCGCTTCTCTACGCCC GCGACCCTATTTTCGGCAACCAGATCATCCCCGA CACCGCTATTCTGAGCGTGGTGCCATTCCACCACGGCTTCGGCATGTTACCACCCT GGGCTACCTGATTTGCGGCTTTCGGGTGGTGTGATGTACCGCTTCGAGGAGGAGCT GTTCTGCGCAGCCTGCAAGACTACAAAATTCAGTCTGCCCTGCTGGTGCCAACCCT</p>

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LacO2-Kt2-Fluc

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**Supplementary Table 2: the sequences of miRNA mimics used in this study**

Name	Sequence (5' -> 3')
miR-21 mimics	UAGCUUAUCAGACUGAUGUUGA
miR-9 mimics	UCUUUGGUUAUCUAGCUGUAUGA
miR-124 mimics	UAAGGCACGCGGUGAAUGCC
miR-1 mimics	UGGAAUGUAAAGAAGUAUGUAU