

Table EV1 Oligonucleotides and *Drosophila* strains used in this study.

1. Oligonucleotides used in this study.

Oligonucleotides	Sequence	IDENTIFIER
<i>AP-2a-K34</i> to R-F	5-AAACGCATAAACAGAGAGTTGGCCA	N/A
<i>AP-2a-K34</i> to R-R	5-TGGCCAACTCTCTGTTATGCGTTT	N/A
<i>AP-2a-K290</i> to R-F	5-CGATTTTGAAACAGAGCGCAAGAGCC	N/A
<i>AP-2a-K290</i> to R-R	5-GGCTCTTGCGCTCTGTCAAAATCG	N/A
<i>AP-2a-K857</i> to R-F	5-CAGAAAGTGTTTCAGAGCTGCACAG	N/A
<i>AP-2a-K857</i> to R-R	5-CTGTGCAGCTCTGAACACTTTCTG	N/A
DsRNA for <i>mib1</i> F1	5-TAATACGACTCACTATAGGGAGAGGGTGTGGTAGTGAGCAGTG	N/A
DsRNA for <i>mib1</i> R1	5-TCTCCCTATAGTGAGTCTGTATTAGGAGAATCTTCGGACGAGGG	N/A
DsRNA for <i>mib1</i> F2	5-TAATACGACTCACTATAGGGAGATGTGCTCCATCTGCTACCAC	N/A
DsRNA for <i>mib1</i> R2	5-TCTCCCTATAGTGAGTCTGTATTACCTCTGGCGAGCACTTTCTT	N/A
qPCR for <i>rp49</i> F	5-CCACCACTCGGATCGATATGC	N/A
qPCR for <i>rp49</i> R	5-CTCTTGAGAACGCGAGGCGACC	N/A
qPCR for <i>mib1</i> F	5-GGAGAATCTTCGGACGAGGG	N/A
qPCR for <i>mib1</i> R:	5-GGGTGTGGTAGTGAGCAGTG	N/A
qPCR- <i>spz5</i> -F	5-GGAAAGACGTAAGTCCGAGCA	N/A
qPCR- <i>spz5</i> -R	5-AAATCTTCCAGGTTTCGTCC	N/A
qPCR- <i>Socs36E</i> -F	5-GCACAGAAGGCAGACC	N/A
qPCR- <i>Socs36E</i> -R	5-ACGTAGGAGACCCGTAT	N/A
qPCR- <i>TotA</i> -F	5-CTGCTCTTATGTAAGTAGTATCGAAT	N/A
qPCR- <i>TotA</i> -R	5-CAACGATCCTCGCCTTCGACC	N/A
qPCR- <i>TotM</i> -F	5-TCGACAGCCTGGTCACCTTC	N/A
qPCR- <i>TotM</i> -R	5-ACCAAGACCACACGAGCATT	N/A
qPCR- <i>Pvf1</i> -F	5-AAGCCGGAACACCAATTGAC	N/A
qPCR- <i>Pvf1</i> -R	5-CATGATGCTGCGCTTAAAGT	N/A
qPCR- <i>Pvf2</i> -F	5-CCTATGCCCAAGCACTTCA	N/A
qPCR- <i>Pvf2</i> -R	5-CCCTCAACGCCGTTTTTCAG	N/A
qPCR- <i>Pvf3</i> -F	5-AGCCAAATTTGTGCCGCCAAG	N/A
qPCR- <i>Pvf3</i> -R	5-CTGCGATGCTTACTGCTTTCACG	N/A
qPCR- <i>upd1</i> -F	5-GCACACTGATTTCGATACGG	N/A
qPCR- <i>upd1</i> -R	5-CTGCCGTGGTGTGTTTT	N/A
qPCR- <i>upd2</i> --F	5-GGCTCTTCTGCTGATCCTTG	N/A
qPCR- <i>upd2</i> -R	5-AAGACTTGGTACCGCCACA	N/A
qPCR- <i>upd3</i> -F	5-GCGGGGAGGATGTACC	N/A
qPCR- <i>upd3</i> -R	5-GTCTTCATGGAATGAGCC	N/A
qPCR- <i>ban</i> -F	5-ATT TGA CTA CGA AAC CGG TTT TCG	N/A
qPCR- <i>ban</i> -R	5-CAG CTT TCA AAA TGA TCT CAC TTG	N/A
qPCR- <i>CycE</i> -F	5-GAC ATC AGC CCC ATC ACC	N/A
qPCR- <i>CycE</i> -R	5-TGC CAA TCT GGG AGA ACG	N/A
qPCR- <i>Mer</i> -F	5-CCA AAG ACA ACG TTC CAG TG	N/A
qPCR- <i>Mer</i> -R	5-GGA GGT CCT GCG AGT AAA AG	N/A
qPCR- <i>Myc</i> -F:	5-AGCCAGAGATCCGCAACATC	N/A
qPCR- <i>Myc</i> -R	5-CGCGCTGTAGAGATTCTAGAG	N/A
qPCR-ex- F	5-AGAGTGCACGAAGAGTGAGC	N/A
qPCR-ex- R	5-AATCGCGAGCCTGGTGATAG	N/A
qPCR- <i>ff</i> -F	5-AGGGATGCGGAAGAATGCAA	N/A
qPCR- <i>ff</i> -R	5-GGCTGAAAGGGCTGTGGTAT	N/A
qPCR- <i>Diap1</i> -F	5-AAATGCTTTTCTGCGGCGT	N/A
qPCR- <i>Diap1</i> -R	5-CTCATCTCCAGCGTCGAGTC	N/A
qPCR- <i>cact</i> -F	5-CTGCATCTTTCTGTCATCGC	N/A
qPCR- <i>cact</i> -R	5-CTCAGGGAAGTACCGCTTT	N/A
spz5 Cut&Run pF1	5-ACGTGTTATATACATATGTA	N/A
spz5 Cut&Run pR1	5-CACTTAAGCCGCTCATTAA	N/A
spz5 Cut&Run pF2	5-CGGCAGACTGATGAAGTCAC	N/A
spz5 Cut&Run pR2	5-AGAAAAGTACGGGAAAACCC	N/A
spz5 Cut&Run pF3	5-AGTGAGTAAATCATGTAACCATAC	N/A
spz5 Cut&Run pR3	5-ATAGACCGAAATATATCTAGTAAG	N/A

2. *Drosophila* strains used in this study.

REAGENT or RESOURCE	SOURCE	IDENTIFIER
Experimental Models: <i>Drosophila melanogaster</i>		
<i>Drosophila melanogaster</i> : w ¹¹¹⁸	Bloomington <i>Drosophila</i> Stock Center	Cat# 5905
<i>Drosophila melanogaster</i> : alphaTub84B-QF2	Bloomington <i>Drosophila</i> Stock Center	Cat# 51958
<i>Drosophila melanogaster</i> : alphaTub84B-QS	Bloomington <i>Drosophila</i> Stock Center	Cat# 30034
<i>Drosophila melanogaster</i> : QUAS-mCD8-GFP	Bloomington <i>Drosophila</i> Stock Center	Cat# 30002
<i>Drosophila melanogaster</i> : QUAS-mtTomato-3xHA, M2ET-QF	Bloomington <i>Drosophila</i> Stock Center	Cat# 30043
<i>Drosophila melanogaster</i> : Act5C>y ⁺ >Gal4	Bloomington <i>Drosophila</i> Stock Center	Cat# 3953
<i>Drosophila melanogaster</i> : UAS-Toll-6 ^{RNAi}	Bloomington <i>Drosophila</i> Stock Center	Cat# 64968
<i>Drosophila melanogaster</i> : UAS-yki ^{S11A.S168A.S250A.V5}	Bloomington <i>Drosophila</i> Stock Center	Cat# 28816
<i>Drosophila melanogaster</i> : UAS-smo ^{RNAi}	Bloomington <i>Drosophila</i> Stock Center	Cat# 28817
<i>Drosophila melanogaster</i> : UAS-smo ^{ACT.Flg}	Bloomington <i>Drosophila</i> Stock Center	Cat# 24472
<i>Drosophila melanogaster</i> : UAS-spz ^{RNAi}	Bloomington <i>Drosophila</i> Stock Center	Cat# 44621
<i>Drosophila melanogaster</i> : UAS-bsk ^{DN}	Bloomington <i>Drosophila</i> Stock Center	Cat# 67229
<i>Drosophila melanogaster</i> : UAS-Stat92E ^{RNAi}	Bloomington <i>Drosophila</i> Stock Center	Cat# 6409
<i>Drosophila melanogaster</i> : UAS-hop	Bloomington <i>Drosophila</i> Stock Center	Cat# 35600
<i>Drosophila melanogaster</i> : UAS-pv1 ^{RNAi}	Bloomington <i>Drosophila</i> Stock Center	Cat# 79033
<i>Drosophila melanogaster</i> : UAS-pv2 ^{RNAi}	Bloomington <i>Drosophila</i> Stock Center	Cat# 39038
<i>Drosophila melanogaster</i> : UAS-pv3 ^{RNAi}	Bloomington <i>Drosophila</i> Stock Center	Cat# 61955
<i>Drosophila melanogaster</i> : UAS-pvr ^{DN}	Bloomington <i>Drosophila</i> Stock Center	Cat# 38962
<i>Drosophila melanogaster</i> : TRE-DsRed	Bloomington <i>Drosophila</i> Stock Center	Cat# 58430
<i>Drosophila melanogaster</i> : pnt-lacZ	Bloomington <i>Drosophila</i> Stock Center	Cat# 59012
<i>Drosophila melanogaster</i> : spi-lacZ	Bloomington <i>Drosophila</i> Stock Center	Cat# 11724
<i>Drosophila melanogaster</i> : AP-2a ⁴⁰⁻³¹	Bloomington <i>Drosophila</i> Stock Center	Cat# 10462
<i>Drosophila melanogaster</i> : UAS-Toll-6 ^{RNAi}	Bloomington <i>Drosophila</i> Stock Center	Cat# 64752
<i>Drosophila melanogaster</i> : UAS-Toll-6 ^{RNAi}	Vienna <i>Drosophila</i> Resource Center	Cat# v27102
<i>Drosophila melanogaster</i> : UAS-mib1 ^{RNAi}	Vienna <i>Drosophila</i> Resource Center	Cat# v27103
<i>Drosophila melanogaster</i> : UAS-upd1 ^{RNAi}	Vienna <i>Drosophila</i> Resource Center	Cat# v27525
<i>Drosophila melanogaster</i> : UAS-upd2 ^{RNAi}	Vienna <i>Drosophila</i> Resource Center	Cat# v3282
<i>Drosophila melanogaster</i> : UAS-upd3 ^{RNAi}	Vienna <i>Drosophila</i> Resource Center	Cat# v330691
<i>Drosophila melanogaster</i> : UAS-hop ^{RNAi}	Vienna <i>Drosophila</i> Resource Center	Cat# v27134
<i>Drosophila melanogaster</i> : UAS-arm ^{RNAi}	Vienna <i>Drosophila</i> Resource Center	Cat# v40037
<i>Drosophila melanogaster</i> : UAS-spz ^{RNAi}	Vienna <i>Drosophila</i> Resource Center	Cat# v107344
<i>Drosophila melanogaster</i> : UAS-ci ^{RNAi}	Vienna <i>Drosophila</i> Resource Center	Cat# v41295
<i>Drosophila melanogaster</i> : UAS-mib1 ^{RNAi}	National Institute of Genetics (NIG)	Cat# 2125R-2
<i>Drosophila melanogaster</i> : UAS-Stat92E ^{RNAi}	Tsinghua Fly Center	Cat# TH201501168.S
<i>Drosophila melanogaster</i> : UAS-pvr ^{RNAi}	Tsinghua Fly Center	Cat# THU4483
<i>Drosophila melanogaster</i> : UAS-Toll-6 ^{ACT.Flg}	Tsinghua Fly Center	Cat# THU5196
<i>Drosophila melanogaster</i> : scrib ¹	Gift from Tian Xu (Westlake University)	Original source: (Mishra-Gorur, et al., 2019, DMM)
<i>Drosophila melanogaster</i> : UAS-dome ^{DN}	Gift from Tian Xu (Westlake University)	Original source: (Bilder, et al., 2000, Science)
<i>Drosophila melanogaster</i> : UAS-dome	Gift from Tian Xu (Westlake University)	Original source: (Ming Wu, et al., 2010, Nature)
<i>Drosophila melanogaster</i> : UAS-sd ^{ACT}	Gift from Tian Xu (Westlake University)	N/A
<i>Drosophila melanogaster</i> : UAS-sd	Gift from Tian Xu (Westlake University)	N/A
<i>Drosophila melanogaster</i> : UAS-sd ^{RNAi}	Gift from Tian Xu (Westlake University)	N/A
<i>Drosophila melanogaster</i> : UAS-myr.RFP	Gift from Tian Xu (Westlake University)	N/A
<i>Drosophila melanogaster</i> : FRT 40A	Gift from Tian Xu (Westlake University)	N/A
<i>Drosophila melanogaster</i> : FRT 79E	Gift from Tian Xu (Westlake University)	N/A
<i>Drosophila melanogaster</i> : FRT 82B	Gift from Tian Xu (Westlake University)	N/A
<i>Drosophila melanogaster</i> : yw, cy-Flp1; Tub-Gal80, FRT 40A: Act5C>y ⁺ >Gal4, UAS-GFP	Gift from Tian Xu (Westlake University)	N/A
<i>Drosophila melanogaster</i> : yw, cy-Flp1; Act5C>y ⁺ >Gal4, UAS-GFP; Tub-Gal80, FRT 79E	Gift from Tian Xu (Westlake University)	N/A
<i>Drosophila melanogaster</i> : yw, cy-Flp1; Act5C>y ⁺ >Gal4, UAS-GFP; FRT 82B, Tub-Gal80	Gift from Tian Xu (Westlake University)	N/A
<i>Drosophila melanogaster</i> : yw, cy-Flp1; Act5C>y ⁺ >Gal4, UAS-RFP; FRT 82B, Tub-Gal80	Gift from Tian Xu (Westlake University)	N/A
<i>Drosophila melanogaster</i> : yw, Ubx-Flp1; Act5C>y ⁺ >Gal4, UAS-GFP; FRT 82B, Tub-Gal80	Gift from Tian Xu (Westlake University)	N/A
<i>Drosophila melanogaster</i> : UAS-ci ^{ACT.HA}	Gift from Lei Xue (Tongji University)	Original source: (Yang Chen, et al., 1999, Development)
<i>Drosophila melanogaster</i> : 10xStat-GFP	Gift from Lei Xue (Tongji University)	N/A
<i>Drosophila melanogaster</i> : NRE-GFP	Gift from Lei Xue (Tongji University)	N/A
<i>Drosophila melanogaster</i> : UAS-ptc	Gift from Lei Xue (Tongji University)	N/A
<i>Drosophila melanogaster</i> : Cg-Gal4	Gift from Lei Xue (Tongji University)	N/A
<i>Drosophila melanogaster</i> : r4-Gal4	Gift from Lei Xue (Tongji University)	N/A
<i>Drosophila melanogaster</i> : He-Gal4	Gift from Lei Xue (Tongji University)	N/A
<i>Drosophila melanogaster</i> : ap-Gal4	Gift from Lei Xue (Tongji University)	N/A
<i>Drosophila melanogaster</i> : dpp-lacZ	Gift from Zizhang Zhou (Shandong Agricultural University)	N/A
<i>Drosophila melanogaster</i> : UAS-AP-2a ^{HA}	This Paper	N/A
<i>Drosophila melanogaster</i> : QUAS-yki ^{WT}	This Paper	N/A
<i>Drosophila melanogaster</i> : QUAS-yki ^{S111A.S168A.S250A}	This Paper	N/A