

Table S1: Genotypes of the flies used in this study

Figure panels	Genotypes tested
2A	<i>GAL4⁴⁷⁷,UAS-mCD8::GFP/+; GAL4^{ppk1.9},UASmCD8::GFP/+</i>
2A	<i>2R WT MARCM control</i>
2A	<i>GAL4⁴⁷⁷,UAS-mCD8::GFP/+; GAL4^{ppk1.9},UASmCD8::GFP/UAS-RpL7-IR</i>
2A	<i>GAL4⁴⁷⁷,UAS-mCD8::GFP/+;GAL4^{ppk1.9},UASmCD8::GFP/UAS-RpL36A-IR</i>
2A	<i>GAL4⁴⁷⁷,UAS-mCD8::GFP/+; GAL4^{ppk1.9},UASmCD8::GFP/UAS-dmn-IR</i>
2A	<i>GAL4⁵⁻⁴⁰, UAS-Venus.m¹, SOP-FLP⁴²; FRT^{42D}, dmn^{k16109};+ (dmn MARCM)</i>
2A	<i>GAL4⁴⁷⁷,UAS-mCD8::GFP/+; GAL4^{ppk1.9},UASmCD8::GFP/UAS-msps-IR</i>
2A	<i>ppkEGFP/+;+;msps^{M109877}/+</i>
2A	<i>GAL4⁴⁷⁷,UAS-mCD8::GFP/+; GAL4^{ppk1.9},UASmCD8::GFP/UAS-T-cp1-IR</i>
2A	<i>ppkEGFP/+;+; T-cp1^{c03987}/+</i>
2A	<i>GAL4⁴⁷⁷,UAS-mCD8::GFP/+;GAL4^{ppk1.9},UASmCD8::GFP/UAS-CCT2-IR</i>
3A	<i>GAL4⁴⁷⁷,UAS-mCD8::GFP/+; GAL4^{ppk1.9},UASmCD8::GFP/+</i>
3A	<i>GAL4⁴⁷⁷,UAS-mCD8::GFP/+; GAL4^{ppk1.9},UASmCD8::GFP/UAS-wdb-IR</i>
3A	<i>GAL4⁵⁻⁴⁰, UAS-Venus.m¹, SOP-FLP⁴²;+; FRT^{82B} wdb¹⁴ (wdb MARCM)</i>
3A	<i>GAL4⁴⁷⁷,UAS-mCD8::GFP/+; GAL4^{ppk1.9},UASmCD8::GFP/UAS-Ank2-IR</i>
3A	<i>ppkEGFP/+;+; Ank2^{M106602}/+</i>
3A	<i>GAL4⁴⁷⁷,UAS-mCD8::GFP/+;GAL4^{ppk1.9},UASmCD8::GFP/UAS-RhoGAP18B-IR</i>
3A	<i>RhoGAP18B^{KG00160}/+;+; ppkEGFP/+</i>
3A	<i>GAL4⁴⁷⁷,UAS-mCD8::GFP/+;GAL4^{ppk1.9},UASmCD8::GFP/UAS-ctp/Cdlec2-IR</i>
3A	<i>ctp^{G0445b}, FRT^{19A}; PGawB¹⁰⁹⁽²⁾⁸⁰,UAS-mCD8::GFP.L^{LL5}, SOP-FLP⁷³;+ (ctp MARCM)</i>
4A	<i>GAL4⁴⁷⁷,UAS-mCD8::GFP/+;GAL4^{ppk1.9},UASmCD8::GFP/+</i>
4A	<i>19A MARCM control</i>
4A	<i>GAL4⁴⁷⁷,UAS-mCD8::GFP/+; GAL4^{ppk1.9},UASmCD8::GFP/UAS-SkpA-IR</i>
4A	<i>SkpA^A, FRT^{19A}; PGawB¹⁰⁹⁽²⁾⁸⁰,UAS-mCD8::GFP.L^{LL5}, SOP-FLP⁷³;+ (SkpA MARCM)</i>
4A	<i>GAL4⁴⁷⁷,UAS-mCD8::GFP/+; GAL4^{ppk1.9},UASmCD8::GFP/UAS-cpa-IR</i>

4A	<i>+</i> ; <i>cpa</i> ^{KG02261} / <i>+</i> ; <i>ppk::tdtomato</i>
4A	<i>GAL4</i> ⁴⁷⁷ , <i>UAS-mCD8::GFP/+</i> ; <i>GAL4</i> ^{ppk1.9} , <i>UASmCD8::GFP/UAS-cpb-IR</i>
4A	<i>+</i> ; <i>cpb</i> ^{F19} / <i>+</i> ; <i>ppk::tdtomato</i>
5A	<i>+</i> ; <i>GAL4</i> ²²¹ , <i>UAS-mCD8::GFP/+</i>
5B	<i>UAS-cut/+</i> ; <i>GAL4</i> ²²¹ , <i>UAS-mCD8::GFP/+</i>
5C	<i>UAS-cut/+</i> ; <i>GAL4</i> ²²¹ , <i>UAS-mCD8::GFP/RhoGAP18B-IR</i>
5D	<i>UAS-cut/+</i> ; <i>GAL4</i> ²²¹ , <i>UAS-mCD8::GFP/RpL36A-IR</i>
5E	<i>UAS-cut/+</i> ; <i>GAL4</i> ²²¹ , <i>UAS-mCD8::GFP/wdb-IR</i>
5F	<i>UAS-cut/+</i> ; <i>GAL4</i> ²²¹ , <i>UAS-mCD8::GFP/ctp/Cd1c2-IR</i>
5G	<i>UAS-cut/+</i> ; <i>GAL4</i> ²²¹ , <i>UAS-mCD8::GFP/msps-IR</i>
5H	<i>UAS-cut/+</i> ; <i>GAL4</i> ²²¹ , <i>UAS-mCD8::GFP/cpa-IR</i>
5I	<i>UAS-cut/+</i> ; <i>GAL4</i> ²²¹ , <i>UAS-mCD8::GFP/cpb-IR</i>
5J	<i>UAS-cut/+</i> ; <i>GAL4</i> ²²¹ , <i>UAS-mCD8::GFP/Skpa-IR</i>
5K	<i>UAS-kn/+</i> ; <i>GAL4</i> ²²¹ , <i>UAS-mCD8::GFP/+</i>
5L	<i>UAS-kn/+</i> ; <i>GAL4</i> ²²¹ , <i>UAS-mCD8::GFP/wdb-IR</i>
5M	<i>UAS-kn/+</i> ; <i>GAL4</i> ²²¹ , <i>UAS-mCD8::GFP/Ank2-IR</i>
5N	<i>UAS-kn/+</i> ; <i>GAL4</i> ²²¹ , <i>UAS-mCD8::GFP/RhoGAP18B-IR</i>
5O	<i>UAS-kn/+</i> ; <i>GAL4</i> ²²¹ , <i>UAS-mCD8::GFP/RpL7-IR</i>
5P	<i>UAS-kn/+</i> ; <i>GAL4</i> ²²¹ , <i>UAS-mCD8::GFP/RpL36A-IR</i>
5Q	<i>UAS-kn/+</i> ; <i>GAL4</i> ²²¹ , <i>UAS-mCD8::GFP/T-cpl-IR</i>
6A	<i>UAS-GMA::GFP/+</i> ; <i>GAL4</i> ⁴⁷⁷ , <i>UAS-mCherry::Jup/+</i> ; <i>+</i>
6B	<i>UAS-GMA::GFP/+</i> ; <i>GAL4</i> ⁴⁷⁷ , <i>UAS-mCherry::Jup</i> ; <i>UAS-Rpl7-IR /+</i>
6C	<i>UAS-GMA::GFP/+</i> ; <i>GAL4</i> ⁴⁷⁷ , <i>UAS-mCherry::Jup</i> ; <i>UAS-Rpl36A-IR /+</i>
6D	<i>UAS-GMA::GFP/+</i> ; <i>GAL4</i> ⁴⁷⁷ , <i>UAS-mCherry::Jup</i> ; <i>UAS-dmn-IR /+</i>
6E	<i>UAS-GMA::GFP/+</i> ; <i>GAL4</i> ⁴⁷⁷ , <i>UAS-mCherry::Jup</i> ; <i>UAS-msps-IR /+</i>
6F	<i>UAS-GMA::GFP/+</i> ; <i>GAL4</i> ⁴⁷⁷ , <i>UAS-mCherry::Jup</i> ; <i>UAS-CCT2-IR /+</i>
7A	<i>UAS-GMA::GFP/+</i> ; <i>GAL4</i> ⁴⁷⁷ , <i>UAS-mCherry::Jup/+</i> ; <i>+</i>
7B	<i>UAS-GMA::GFP/+</i> ; <i>GAL4</i> ⁴⁷⁷ , <i>UAS-mCherry::Jup</i> ; <i>UAS-wdb-IR /+</i>

7C	<i>UAS-GMA::GFP/+; GAL4⁴⁷⁷, UAS-mCherry::Jup; UAS-Ank2-IR /+</i>
7D	<i>UAS-GMA::GFP/+; GAL4⁴⁷⁷, UAS-mCherry::Jup; UAS-RhoGAP18B-IR /+</i>
7E	<i>UAS-GMA::GFP/+; GAL4⁴⁷⁷, UAS-mCherry::Jup; UAS-ctp/Cdlc2-IR /+</i>
8A	<i>UAS-GMA::GFP/+; GAL4⁴⁷⁷, UAS-mCherry::Jup/+; +</i>
8B	<i>UAS-GMA::GFP/+; GAL4⁴⁷⁷, UAS-mCherry::Jup; UAS-SkpA-IR /+</i>
8C	<i>UAS-GMA::GFP/+; GAL4⁴⁷⁷, UAS-mCherry::Jup; UAS-cpa-IR /+</i>
8D	<i>UAS-GMA::GFP/+; GAL4⁴⁷⁷, UAS-mCherry::Jup; UAS-cpb-IR /+</i>
S4D	<i>GAL4⁴⁷⁷, UAS-mCD8::GFP/+; GAL4^{ppk1.9}, UASmCD8::GFP/+</i>
S4E	<i>GAL4⁴⁷⁷, UAS-mCD8::GFP/UAS-ctp; GAL4^{ppk1.9}, UASmCD8::GFP/+</i>
S4F	<i>GAL4⁴⁷⁷, UAS-mCD8::GFP/+; GAL4^{ppk1.9}, UASmCD8::GFP/UAS-wdb</i>
S4G,H	<i>GAL4⁴⁷⁷, UAS-mCD8::GFP/+; GAL4^{ppk1.9}, UASmCD8::GFP/UAS-RpL7</i>
S4G,H	<i>GAL4⁴⁷⁷, UAS-mCD8::GFP/+; GAL4^{ppk1.9}, UASmCD8::GFP/UAS-RpL36A</i>
S4G,H	<i>GAL4⁴⁷⁷, UAS-mCD8::GFP/UAS-dmn; GAL4^{ppk1.9}, UASmCD8::GFP/+</i>
S4G,H	<i>GAL4⁴⁷⁷, UAS-mCD8::GFP/UAS-CCT2; GAL4^{ppk1.9}, UASmCD8::GFP/+</i>
S4G,H	<i>GAL4⁴⁷⁷, UAS-mCD8::GFP/+; GAL4^{ppk1.9}, UASmCD8::GFP/UAS-SkpA</i>
S4G,H	<i>GAL4⁴⁷⁷, UAS-mCD8::GFP/ UAS-cpb; GAL4^{ppk1.9}, UASmCD8::GFP/+</i>
S5A	<i>GAL4⁴⁷⁷ / +; ppk::tdTomato/+</i>
S5B	<i>GAL4⁴⁷⁷ / +; ppk::tdTomato /UAS-RpL7-IR</i>
S5C	<i>GAL4⁴⁷⁷ / +; ppk::tdTomato /UAS-RpL36A-IR</i>
S5D	<i>GAL4⁴⁷⁷ / +; ppk::tdTomato /UAS-dmn-IR</i>
S5E	<i>GAL4⁴⁷⁷ / +; ppk::tdTomato /UAS-msps-IR</i>
S5F	<i>GAL4⁴⁷⁷ / +; ppk::tdTomato /UAS-T-cp1-IR</i>
S5G	<i>GAL4⁴⁷⁷ / +; ppk::tdTomato /UAS-CCT2-IR</i>
S5H	<i>GAL4⁴⁷⁷ / +; ppk::tdTomato /UAS-wdb-IR</i>
S5I	<i>GAL4⁴⁷⁷ / +; ppk::tdTomato /UAS-Ank2-IR</i>
S5J	<i>GAL4⁴⁷⁷ / +; ppk::tdTomato /UAS-RhoGAP18B-IR</i>
S5K	<i>GAL4⁴⁷⁷ / +; ppk::tdTomato /UAS-ctp/Cdlc2-IR</i>
S5L	<i>GAL4⁴⁷⁷ / +; ppk::tdTomato /UAS-SkpA-IR</i>

<i>S5M</i>	<i>GAL4⁴⁷⁷/+; ppk::tdTomato /UAS-cpa-IR</i>
<i>S5N</i>	<i>GAL4⁴⁷⁷/+; ppk::tdTomato /UAS-cpb-IR</i>
<i>S8 (CIV WT)</i>	<i>UAS-GMA::GFP/+; GAL4⁴⁷⁷, UAS-mCherry::Jup/+; +</i>
<i>S8 (CIV>RpL36-IR)</i>	<i>UAS-GMA::GFP/+; GAL4⁴⁷⁷, UAS-mCherry::Jup; UAS-RpL36A-IR /+</i>