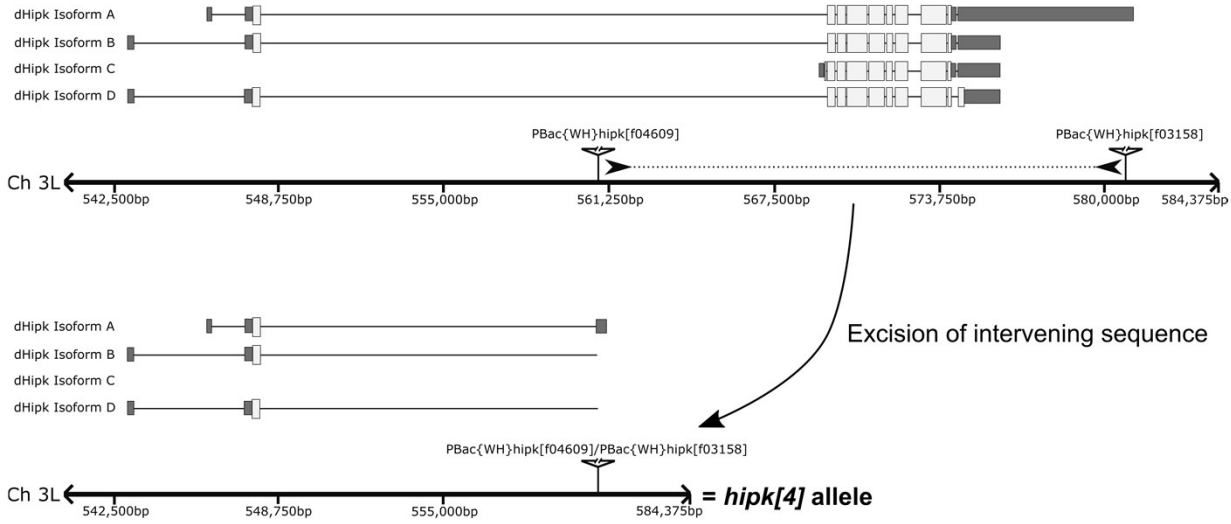
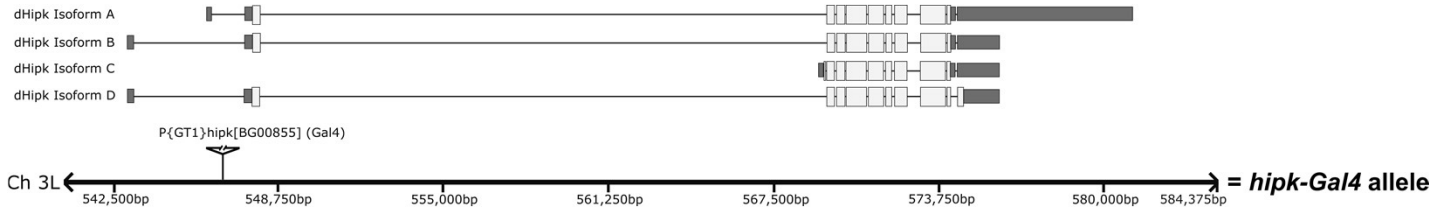
Fig S1

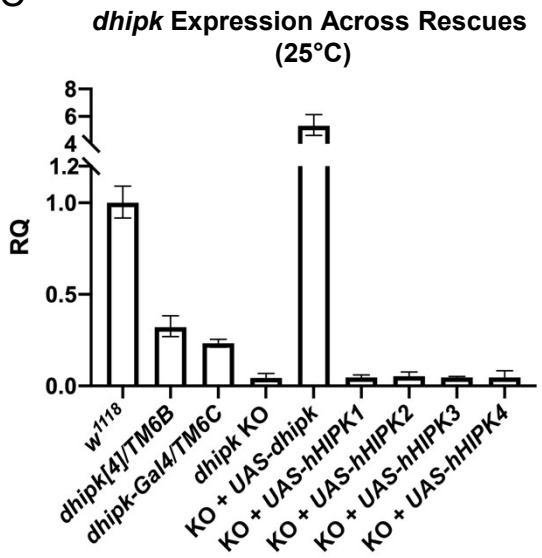
A


dHipk Isoform A
dHipk Isoform B
dHipk Isoform C
dHipk Isoform D
PBac{WH}hipk[f04609]
PBac{WH}hipk[f03158]
Ch 3L
542,500bp
548,750bp
555,000bp
561,250bp
567,500bp
573,750bp
580,000bp
584,375bp
Excision of intervening sequence
PBac{WH}hipk[f04609]/PBac{WH}hipk[f03158]
= hipk[4] allele

B


dHipk Isoform A
dHipk Isoform B
dHipk Isoform C
dHipk Isoform D
P{GT1}hipk[BG00855] (Gal4)
Ch 3L
542,500bp
548,750bp
555,000bp
561,250bp
567,500bp
573,750bp
580,000bp
584,375bp
= hipk-Gal4 allele

C


dhipk Expression Across Rescues
(25°C)
RQ
8
6
4
1.2
1.0
0.5
0.0
w1118
dhipk[4]/TM6B
dhipk-Gal4/TM6C
dhipk KO
KO + UAS-dhipk
KO + UAS-hHIPK1
KO + UAS-hHIPK2
KO + UAS-hHIPK3
KO + UAS-hHIPK4

D

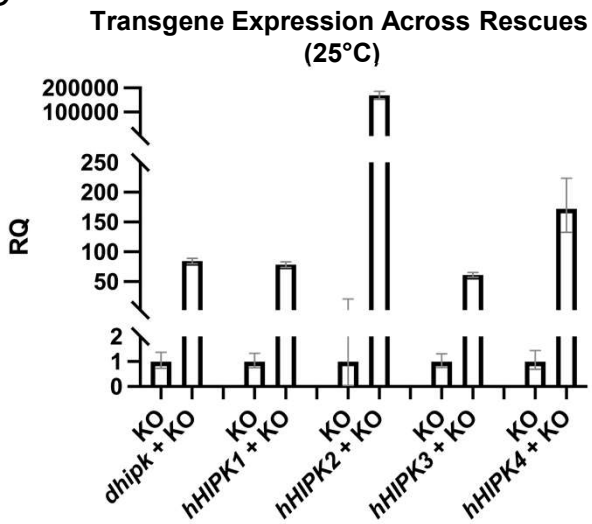

Transgene Expression Across Rescues
(25°C)
RQ
200000
100000
250
200
150
100
50
2
1
0
KO
dhipk + KO
KO
hHIPK1 + KO
KO
hHIPK2 + KO
KO
hHIPK3 + KO
KO
hHIPK4 + KO

Fig S2

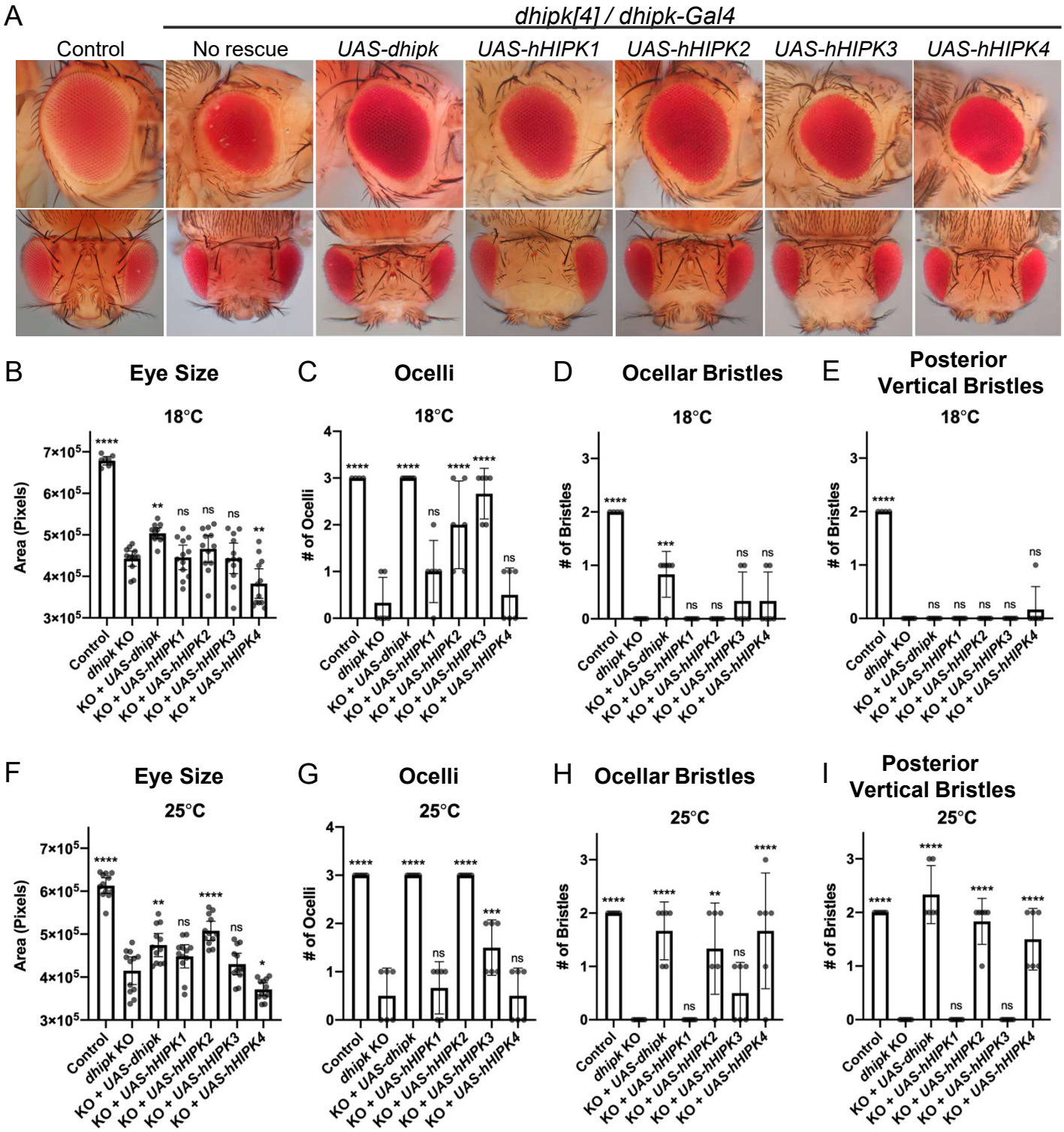
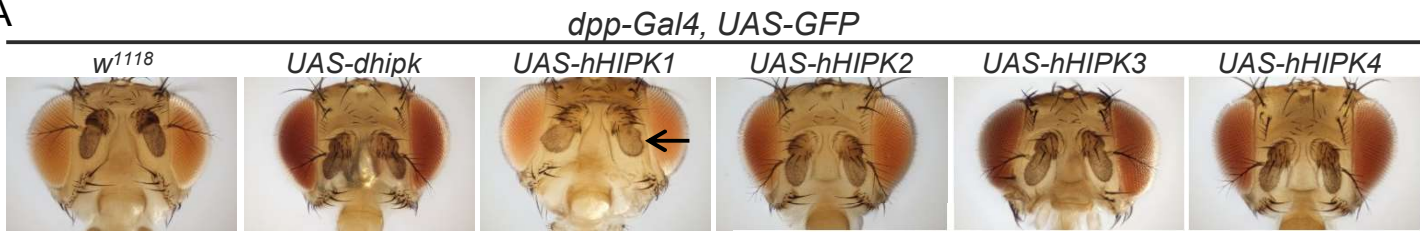

A
dhipk[4] / dhipk-Gal4
Control
No rescue
UAS-dhipk
UAS-hHIPK1
UAS-hHIPK2
UAS-hHIPK3
UAS-hHIPK4
B
Eye Size
18°C
Area (Pixels)
C
Ocelli
18°C
# of Ocelli
D
Ocellar Bristles
18°C
# of Bristles
E
Posterior Vertical Bristles
18°C
# of Bristles
F
Eye Size
25°C
Area (Pixels)
G
Ocelli
25°C
# of Ocelli
H
Ocellar Bristles
25°C
# of Bristles
I
Posterior Vertical Bristles
25°C
# of Bristles
Control
dhipk KO
KO + UAS-dhipk
KO + UAS-hHIPK1
KO + UAS-hHIPK2
KO + UAS-hHIPK3
KO + UAS-hHIPK4

Fig S3

A


dpp-Gal4, UAS-GFP
w1118
UAS-dhipk
UAS-hHIPK1
UAS-hHIPK2
UAS-hHIPK3
UAS-hHIPK4

B

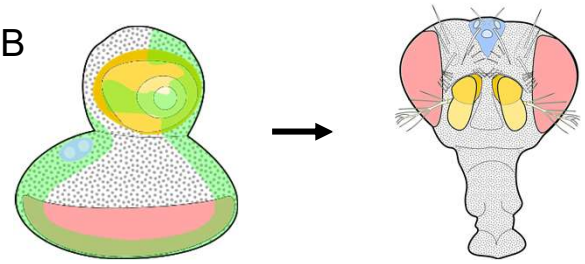


Fig S4

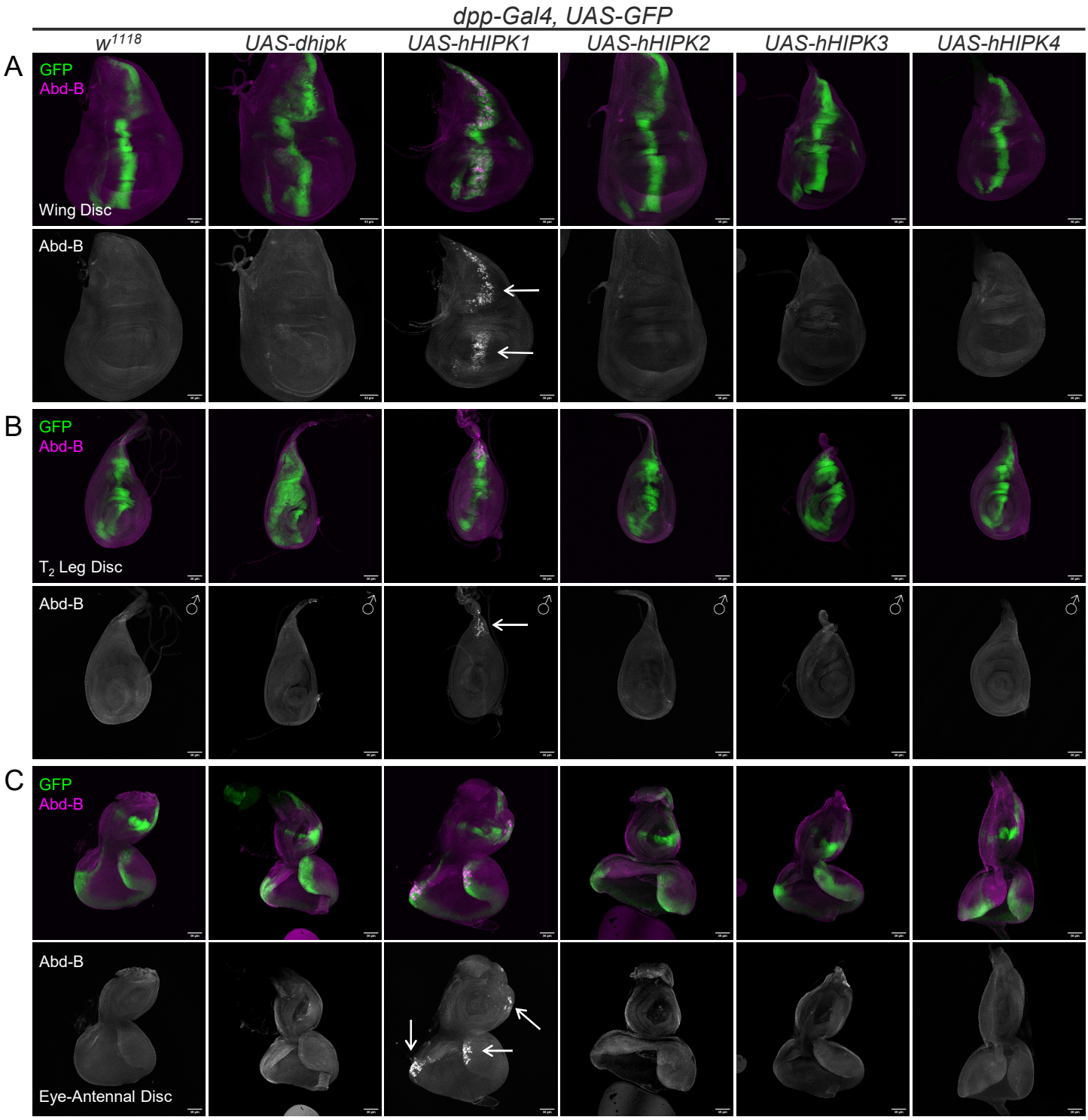

dpp-Gal4, UAS-GFP
w1118
UAS-dhipk
UAS-hHIPK1
UAS-hHIPK2
UAS-hHIPK3
UAS-hHIPK4
A
GFP
Abd-B
Wing Disc
Abd-B
B
GFP
Abd-B
T2 Leg Disc
Abd-B
C
GFP
Abd-B
Abd-B
Eye-Antennal Disc

Fig S5

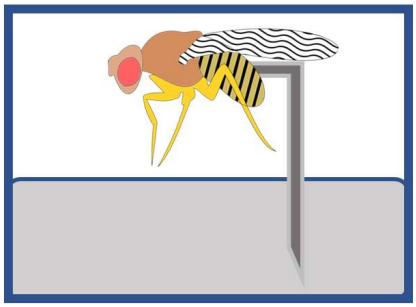


Table S1

Genotype	# Legs Assessed	Deformed (by segment)				Sex Combs
dpp-Gal4, UAS-GFP ***w^{1118}***	**T_1**: 7 / **T_2**: 7 / **T_3**: 7		Fe	Ti	Ta	**T_1**: 100% / **T_2**: 0% / **T_3**: 0%
		T_1	0%	0%	0%	
		T_2	0%	0%	0%	
		T_3	0%	0%	0%	
dpp-Gal4, UAS-GFP ***UAS-dhipk***	**T_1**: 14 / **T_2**: 14 / **T_3**: 13		Fe	Ti	Ta	**T_1**: 100% / **T_2**: 0% / **T_3**: 0%
		T_1	100%	100%	0%	
		T_2	100%	100%	0%	
		T_3	100%	100%	0%	
dpp-Gal4, UAS-GFP ***UAS-hHIPK1***	**T_1**: 21 / **T_2**: 17 / **T_3**: 19		Fe	Ti	Ta	**T_1**: 100% / **T_2**: 88.2% / **T_3**: 78.9%
		T_1	57.1%	33.3%	61.9%	
		T_2	5.9%	5.9%	52.9%	
		T_3	57.9%	84.2%	57.9%	
dpp-Gal4, UAS-GFP ***UAS-hHIPK2***	**T_1**: 19 / **T_2**: 19 / **T_3**: 18		Fe	Ti	Ta	**T_1**: 100% / **T_2**: 0% / **T_3**: 0%
		T_1	0%	0%	0%	
		T_2	0%	0%	0%	
		T_3	0%	0%	0%	
dpp-Gal4, UAS-GFP ***UAS-hHIPK3***	**T_1**: 15 / **T_2**: 15 / **T_3**: 18		Fe	Ti	Ta	**T_1**: 100% / **T_2**: 80.0% / **T_3**: 44.4%
		T_1	80.0%	80%	20%	
		T_2	86.7%	73.3%	20%	
		T_3	94.4%	88.9%	38.9%	
dpp-Gal4, UAS-GFP ***UAS-hHIPK4***	**T_1**: 19 / **T_2**: 19 / **T_3**: 18		Fe	Ti	Ta	**T_1**: 100% / **T_2**: 0% / **T_3**: 0%
		T_1	0%	0%	0%	
		T_2	0%	0%	0%	
		T_3	0%	0%	0%	