

SUPPLEMENTAL METHODS FOR

“Damage responsive elements in *Drosophila* regeneration”

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Supplemental Methods

Reporter Lines				
DRRE Coordinates	DRRE type	Reporter Line	Resource	Code
chrX:19697549-19697888	iDRRE	GMR21F09	Bloomington Stock Center	46164
chr3R:30765485-30765822	iDRRE	GMR35A10	Bloomington Stock Center	49897
chr2L:7286945-7287225	iDRRE	GMR17D09	Bloomington Stock Center	48766
chr3L:6216670-6217317	iDRRE	GMR25D02	Bloomington Stock Center	45848
chr3R:10437127-10437322	iDRRE	VT39456	Viena Drosophila RNAi Center	VT39456
chrX:16254669-16254835	iDRRE	GMR26G03	Bloomington Stock Center	49169
chr2R:10680648-10680812	eDRRE	GMR32B11	Bloomington Stock Center	47539
chr2L:11472301-11472450	eDRRE	GMR85E02	Bloomington Stock Center	46801
chr2L:7266527-7266631	eDRRE	GMR24G07	Bloomington Stock Center	49095
chr3R:11351859-11352162	eDRRE	GMR42G10	Bloomington Stock Center	50168
chr2R:8640900-8641040	eDRRE	GMR69F06	Bloomington Stock Center	39497
chr2R:5741496-5741591	eDRRE	GMR41E03	Bloomington Stock Center	50126
chr3R:13938246-13938465	Neg Ctrl	GMR36C06	Bloomington Stock Center	49931
chr2R:14807712-14808131	Neg Ctrl	GMR47D05	Bloomington Stock Center	47605
chr3R:13939143-13939310	Neg Ctrl	GMR88H01	Bloomington Stock Center	40529

Drosophila Strains

Line	Resource	Code
w ¹¹¹⁸	Bloomington Stock Center	5905
UAS-rpr	Wing et al. 1999	NA
LexO-rpr	Santabárbara-Ruiz et al. 2015	NA
salm-Gal4	Bergantiños et al. 2010	NA
sal ^{E/PV} -LHG	Santabárbara-Ruiz et al. 2015	NA
tub-Gal80 ^{TS}	McGuire et al. 2003	NA
ci-Gal4	Martin and Morata 2006	NA
UAS-mCD8GFP	Bloomington Stock Center	32186
RNAi-Dif	Viena Drosophila RNAi Center	V100537
RNAi-Lilli	Viena Drosophila RNAi Center	V106142-KK
RNAi-Stat92-E	Viena Drosophila RNAi Center	V4386G-GD

Stock List. List of all the stocks acquired from VDRC and Bloomington.

Supplemental Methods

Experiment Genotypes		
	Control	w;salm-Gal4;tub-Gal80 ^{TS}
	Regeneration	wUAS-rpr;salm-Gal4;tub-Gal80 ^{TS}
Fig 1A,B		
Fig 4A	Control - iDRRE	UAS-mCD8GFP/+;GMR25D02-Gal4 /+
	Control - iDRRE	UAS-mCD8GFP/+;VT39456-Gal4/+
	Control - iDRRE	UAS-mCD8GFP/+; GMR26G03-Gal4/+
	Control - eDRRE	UAS-mCD8GFP/+;GMR32B11-Gal4/+
	Control - eDRRE	UAS-mCD8GFP/+;GMR85E02-Gal4/+
	Control - eDRRE	UAS-mCD8GFP/+;GMR24G07-Gal4/+
	Injury - iDRRE	UAS-mCD8GFP/+;GMR25D02-Gal4 /+
	Injury - iDRRE	UAS-mCD8GFP/+;VT39456-Gal4/+
	Injury - iDRRE	UAS-mCD8GFP/+; GMR26G03-Gal4/+
	Injury - eDRRE	UAS-mCD8GFP/+;GMR32B11-Gal4/+
	Injury - eDRRE	UAS-mCD8GFP/+;GMR85E02-Gal4/+
	Injury - eDRRE	UAS-mCD8GFP/+;GMR24G07-Gal4/+
	Genetic Ablation - iDRRE	UAS-mCD8GFP/lexO-rpr;GMR25D02-Gal4/sal ^{E/PV} -LHG:tub-Gal80 ^{TS}
	Genetic Ablation - iDRRE	UAS-mCD8GFP/lexO-rpr;VT39456-Gal4 /sal ^{E/PV} -LHG:tub-Gal80 ^{TS}
	Genetic Ablation - iDRRE	UAS-mCD8GFP/lexO-rpr;GMR26G03-Gal4 /sal ^{E/PV} -LHG:tub-Gal80 ^{TS}
	Genetic Ablation - eDRRE	UAS-mCD8GFP/lexO-rpr;GMR32B11-Gal4/sal ^{E/PV} -LHG:tub-Gal80 ^{TS}
	Genetic Ablation - eDRRE	UAS-mCD8GFP/lexO-rpr;GMR85E02-Gal4/sal ^{E/PV} -LHG:tub-Gal80 ^{TS}
	Genetic Ablation - eDRRE	UAS-mCD8GFP/lexO-rpr;GMR24G07-Gal4/sal ^{E/PV} -LHG:tub-Gal80 ^{TS}
Fig 4B	Control	w;salm-Gal4;tub-Gal80 ^{TS}
	Regeneration	wUAS-rpr;salm-Gal4;tub-Gal80 ^{TS}
Fig 6D	Cell Death ON, RNAi OFF	ci-Gal4/+;lexO-rpr/sal ^{E/PV} -LHG:tub-Gal80 ^{TS}
	Cell Death OFF, RNAi ON	ci-Gal4/RNAi-Dif;sal ^{E/PV} -LHG:tub-Gal80 ^{TS} /+
	CellDeath OFF, RNAi ON	ci-Gal4/RNAi-Stat92-E;sal ^{E/PV} -LHG:tub-Gal80 ^{TS} /+
	Cell Death OFF, RNAi ON	ci-Gal4/RNAi-Lilli;sal ^{E/PV} -LHG:tub-Gal80 ^{TS} /+
	Cell Death ON, RNAi ON	ci-Gal4/RNAi-Dif;lexO-rpr/sal ^{E/PV} -LHG:tub-Gal80 ^{TS}
	Cell Death ON, RNAi ON	ci-Gal4/RNAi-Stat92-E;lexO-rpr/sal ^{E/PV} -LHG:tub-Gal80 ^{TS}
	Cell Death ON, RNAi ON	ci-Gal4/RNAi-Lilli;lexO-rpr/sal ^{E/PV} -LHG:tub-Gal80 ^{TS}
Suppl Fig 9A	Control - NegCtrl	UAS-mCD8GFP/+;GMR36C06-Gal4/+
	Control - NegCtrl	UAS-mCD8GFP/+;GMR47D05-Gal4/+
	Control - NegCtrl	UAS-mCD8GFP/+;GMR88H01-Gal4/+
	Injury - NegCtrl	UAS-mCD8GFP/+;GMR36C06-Gal4/+
	Injury - NegCtrl	UAS-mCD8GFP/+;GMR47D05-Gal4/+
	Injury - NegCtrl	UAS-mCD8GFP/+;GMR88H01-Gal4 /+
Suppl Fig 9B	Control - iDRRE	UAS-mCD8GFP/+;GMR21F09-Gal4/+
	Control - iDRRE	UAS-mCD8GFP/+;GMR35A10-Gal4/+
	Control - iDRRE	UAS-mCD8GFP/+;GMR17D09-Gal4 /+
	Control - eDRRE	UAS-mCD8GFP/+;GMR42G10-Gal4/+
	Control - eDRRE	UAS-mCD8GFP/+;GMR69F06-Gal4/+
	Control - eDRRE	UAS-mCD8GFP/+;GMR41E03-Gal4/+
	Injury - iDRRE	UAS-mCD8GFP/+;GMR21F09-Gal4 /+
	Injury - iDRRE	UAS-mCD8GFP/+;GMR35A10-Gal4/+
	Injury - iDRRE	UAS-mCD8GFP/+;GMR17D09-Gal4/+
	Injury - eDRRE	UAS-mCD8GFP/+;GMR42G10-Gal4/+
	Injury - eDRRE	UAS-mCD8GFP/+;GMR69F06-Gal4/+
	Injury - eDRRE	UAS-mCD8GFP/+;GMR41E03-Gal4/+
Suppl Fig 10B	reused-eDRRE	UAS-mCD8GFP/+;GMR32B11-Gal4/+
	reused-eDRRE	UAS-mCD8GFP/+;GMR85E02-Gal4/+
	reused-eDRRE	UAS-mCD8GFP/+;GMR24G07-Gal4/+
	reused-eDRRE	UAS-mCD8GFP/+;GMR42G10-Gal4/+
	reused-eDRRE	UAS-mCD8GFP/+;GMR69F06-Gal4/+
	reused-eDRRE	UAS-mCD8GFP/+;GMR41E03-Gal4/+

Experiment genotypes. List of all the genotypes used throughout the manuscript.

Supplemental Methods

3C-qPCR		
Interaction	Forward	Reverse
Distal: 2 with 1	TATACTCTGGCCTTCTGCAT	TGTGTCACGCATACGCAATAT
Distal: 2 with 5	ACTCTGCCTCACCGCATT	GGGATACGTACAAGAATACCATAC
Distal: 2 with 4	ATACTGCGACACACAGTGC	CAAATGAGTTGGCGGGACT
Distal: 2 with 3	ATACTGCGACACACAGTGC	TGAGACGGAGTGGCGTAAT
Distal: 3 with 4	ATACTGCGACACACAGTGC	CAGGAACAGCTACGGGATT
Distal: 4 with 5	TCCTTGTGATGCCCTAAA	GTGAGACGGAGTGGCGTAA
Proximal: 2 with 1	GGCCGGAATGGAGGCACTT	ACGCCTCTGATCTGTACCG
Proximal: 3 with 1	GGTGTGGTGAGAGAGTGTGATG	CTACGCCTCTGATCTGTACCG
Control: Apterous	AACATACTCTCGCCCAATCC	ACGTTTCACTTCGAGTACGACGG

ChIP-qPCR		
Region	Forward	Reverse
WNT iDRRE	ACAGAAACCTCGCATTGCACTT	TGCGAATTGGAGTGATGGTG
Proximal eDRRE	TGGTCAGTTGGCTAGTGGA	TAGACGAGGTTGGCTATAATCT
Distal eDRRE	TTTGACATTGGTCGGGCCT	CGGGCCTGCAACAGGTAATG

Primer List. List of all the primers used for 3C-qPCR and ChIP-seq experiments.

SUPPLEMENTAL METHODS REFERENCES

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- McGuire SE, Le PT, Osborn AJ, Matsumoto K, Davis RL. 2003. Spatiotemporal rescue of memory dysfunction in Drosophila. *Science* **302**: 1765–8.
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