

Table S1. Complete survey of 18 nuclear receptors' function in mushroom body neurogenesis by miRNA knockdown.

Gene name	Subfamily	miRNA transgene integration site	OK107>miRNA phenotype	Documented function in MB	miRNA target sequences
EcR	1H	attp-16	Small eye. 100% (n=12) MB had pruning defect	γ pruning	TATGAGCAGCCATCTGAAGAGG CATTGAAGACCTGCTGCATTTC
ERR	3B	attp-16	normal	no	TCAAACCTCTTACCAGACTATGC CCACTTAACGACCAGATGAAGC
E78	1D/E	attp-16	normal	no	GGTTGCAATAGTGCCAATAACA AGATCAGATACACGTCTACTCA
FTZ-F1	5A	attp-16	30% (n=50) MB contained ectopic FasII-positive bundles.	no	TGTAGTCCCTGATAAAGCAATT CGTACTTTTAGCGTCCTACATA
HNF4	2A	attp-16	normal	no	GGTTCTGCAGTCTATTACCTGG CATGCCCGTCAAGCACTACAAT
DHR3	1F	attp-16	normal	no	ACACTAGCTTACATAGAAGCTGG GCAGAACCTATAAACTGATAAG
DHR38	4A	attp-16	normal	no	TCACCACCCATCTCGTTGATCA CAAGCGTATCATCACAACTTGC
DHR96	1I/J	attp-16	normal	no	GCATTTAATGCCTATGTTGATG CGAGAACATAATCCTGATCATG
DHR39	5A	attp-16	normal	no	CGACACCTCTCAAACCTTTACA CAACTCACCAATCCACTACTGG
DHR4	6A	attp-16	normal	no	AGTGGCACGAGATCCTTATCCT TCTCCACATAACCAGAGATCCA
DHR78	2C/D	attp-16	normal	no	GGTTGAGACGTTTCATCAAAAGC GATGTGCAGTGTGCCTTTTCATG
DHR83	2E	attp-16	normal	no	CGTCCTGGAAC TCAACTTTATG ACTGCGCGCTTTCTTGTATGTT
UNF	2E	attp-16	100% (n > 50) MB lobes stopped shortly at the end of peduncle	no	TCATCGATGACCCGGATTAAGG ACACCCATCAACACGAAACAGT CCAGTCCCACCATGGAAAATGA [#]
DSF	2E	attp-16	normal	no	TCTGCAATCCAGCTCTAAAACG GGTTCAAATACTTCCATCAACG
E75	1D/E	attp-16	pupal lethal. larval MB was normal	no	CATCTGAAGCGACAGATTGTGG GCAGCGATATTATCCAAAAC TA
SVP	2F	attp-16	normal	no	GCTGTCATGCAGCAAACATACG GTAACCATTACGAGTAAAAACA
TLL	2E	attp-16	100% (n=12) MB had only a few neurons left	efficient proliferation	TGTGCCATCTGAACATTGACAG GCATCGAGTCGCATTCTATACC
USP	2B	attp-16	100% (n=12) MB had pruning defect	γ pruning	CATCTTCGACCGCATATTGTCTG TGATGACTTCATGACCAATAGC

Subfamily designation is as described by Ruau, D. et al. Update of NUREBASE: nuclear hormone receptor functional genomics. *Nucleic Acid Res.* 32 (database issue), D165-D167 (2004). [#]Target sequence used for the second *DHR51* miRNA (miRNA-b).