

**Table S1. Putative target genes of miRNAs significantly modulated by antidepressant treatments assessed for validation study**

Target gene	miRNA 3 days DMI	miRNA 3 days FLX	miRNA 7 days dmi	miRNA 7 days flx
Adar2			miR-129-5p miR-202-3p	miR-7b miR-342-3p miR-129-5p miR-202-3p
Bcl6		miR-291a-3p	miR-712	
Bmp7			miR-712	miR-205
Dnmt1		miR-291a-3p		
GalR1		miR-291a-3p		Mir-1
Klf7			miR-1941 miR-202-3p	miR-125a-3p
Kv4.2			miR-199b miR-1941-5p miR-684 miR-129-5p miR-511-5p	miR-129-5p miR-511-5p miR-1941-5p miR-199a-3p
Smad1			miR-129-5p	miR-129-5p
Smad2	miR-294	miR-291a-3p		
Tgfbr1		miR-182	miR-1982.2	miR-1982.2 miR-509 miR-342-3p miR-205
Zip1			miR-7a miR-129-5p miR-511-5p miR-488*	miR-7a miR-129-5p miR-511-5p miR-488*