

Additional file 14. Examples of genes in selected gene ontology terms described in text

Gene Symbols	Class	Network/Pathways Identified	Physiological role	References
SLIT2, EPHA8, EPHA5, EPHB4, ROBO3, SLIT3, GJA1 and ROBO2	Axon guidance molecules	Axon guidance signaling	Axonal growth	(Jellinger et al., 1988; McFadden and Minschew, 2013; Wang et al., 2018)
ITGA1, ITGA2, ITGA3, ITGA5, ITGA9, ITGB3, ITGB4, and ITGB5	Cell adhesion molecules	Integrin Signaling	Synaptic development	(Carter et al., 2011; Lilja and Ivaska, 2018)
LMX1A, LMX1B, FOXB1, ARX, PAX6, DLX5, NEUROD1, and LHX1	Transcription factors	Behavior-Cognition, Psychological disorders,	Nervous system development and neuritogenesis	(Thanseem et al., 2011)
KCNJ2, KCNJ5, SCN1A, SCN4B, and HCN1	Channels	Nervous system development and function	Neuronal development	(Guglielmi et al., 2015; Thanseem et al., 2011)
TBR1, CNTNAP2, DLX2	Transcription factors and neurexin molecule	Neuritogenesis and migration of neurons	Neuronal migration	(Reiner et al., 2016); Blueprint Genetics
WNT8B, WNT10B, LEF1, WNT11, FZD2, FZD5, FRZB, FZD8, SFRP2, WNT7A, TCF4	WNT molecules	WNT signaling	Neuronal development and neuronal migration	(Bae and Hong, 2018; Kalkman, 2012; Kwan et al., 2016)
ARX, COL4A1, COL4A2, EMX2, FLNA, LAMA2, NDE1, OCLN, SRPX2, and WDR62	Transcription factors and others	Migration of neurons	Neuronal migration	Blueprint Genetics