

Supplemental tables: Basis for the selection of miRNAs panel for this study

1. Top differentially expressed miRNAs at early glial precursor stage transitions in cells derived from human embryonic stem cells (hESCs) (1)

miRNAs upregulated during transition from neural progenitors (expressing A2B5 and Sox10) to glial precursor stage (expressing Olig1, PDGFR α and NG2 markers)

miRNA names	miRBase accessions
miR-181a-5p	MIMAT0000256
miR-199a-5p	MIMAT0000231
miR-214-3p	MIMAT0000271

miRNAs upregulated during transition from glial precursor (expressing Olig1, PDGFR α and NG2 markers) to early oligodendrocyte progenitor stage (expressing O4 marker)

miRNA names	miRBase accessions
miR-22-3p	MIMAT0000077
miR-34a-5p	MIMAT0000255
miR-125b-5p	MIMAT0000423
miR-184	MIMAT0000454
miR-490-3p	MIMAT0002806

miRNAs downregulated during transition from glial precursor (expressing Olig1, PDGFR α and NG2 markers) to early oligodendrocyte progenitor stage (expressing O4 marker)

miRNA names	miRBase accessions
miR-483-5p	MIMAT0004761
miR-617	MIMAT0003286

2. Top differentially expressed miRNAs during the transition from the oligodendrocyte progenitor stage (expressing A2B5) to premyelinating oligodendrocytes (expressing GalC) in rat postnatal day7 derived cells (2)

miRNA names	miRBase accessions
miR-99a-5p	MIMAT0000097
miR-100-5p	MIMAT0000098
miR-145-5p	MIMAT0000437
miR-449a	MIMAT0001541

3. MiRNAs included in our study that have already been functionally characterized as being important for the differentiation of rodent OPCs are listed below.

miRNA names	miRBase accessions	mRNA targets	Reference (PMIDs)
miR-9-5p	MIMAT0000441	PMP22	18987208
miR-23a-3p	MIMAT0000078	Lamin B1	19259393
miR-219a-5p	MIMAT0000276	PDGFRalpha, Sox6, FoxJ3, ZFP238 and Hes5	20223197, 20223198
miR-338-5p	MIMAT0004701	Sox6 and Hes5	20223198

4. Other miRNAs included in our study

miRNA names	miRBase accessions	Reference (PMIDs)
miR-155-5p	MIMAT0000646	Inflammation related miR; highly expressed in human glial cells (3-5)
miR-219a-2-3p	MIMAT0004675	A miRNA already reported to be detected in human OL lineage cells (6)

References

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