

Table A.1. Clinical characteristics of patients.

Patient number	Sex	Age (year)	Clinical phase	Disease duration (year)	MRI test results
1	F	36	Relapsing	NC	Ventricular plaques
2	F	31	Relapsing	NC	Several periventricular plaques
3	M	29	Relapsing	NC	3 to 4 periventricular plaques
4	F	27	Relapsing	NC	Several periventricular and corpus callosum plaques
5	M	32	Relapsing	NC	Several Periventricular plaques
6	F	40	Relapsing	NC	Ventricular plaques
7	F	25	Relapsing	NC	Cervical plaques
8	F	41	Relapsing	NC	Several little periventricular and cervical plaques
9	F	24	Relapsing	NC	Periventricular and spinal cord plaques
10	M	38	Relapsing	NC	Several Periventricular plaques
11	F	36	Relapsing	NC	Several Periventricular plaques
12	F	35	Relapsing	NC	Periventricular plaques
13	F	42	Relapsing	NC	Periventricular and spinal cord plaques
14	M	35	Relapsing	NC	Ventricular plaques
15	F	26	Relapsing	NC	Cervical plaques
16	F	28	Relapsing	NC	Periventricular plaques
17	M	33	Relapsing	NC	Cervical plaques
18	F	36	Relapsing	NC	Several periventricular and cervical plaques
19	F	29	Relapsing	NC	3 to 4 periventricular plaques
20	F	25	Relapsing	NC	Ventricular and spinal cord plaques
21	F	43	Remitting	1	Several periventricular and cervical plaques
22	F	22	Remitting	1.5	Periventricular plaques
23	M	24	Remitting	2	Several periventricular and cervical plaques
24	F	44	Remitting	8	Many periventricular plaques
25	F	38	Remitting	3	Periventricular plaques
26	F	41	Remitting	7	Several periventricular plaques
27	F	41	Remitting	10	Periventricular and spinal cords plaques
28	F	46	Remitting	12	7 to 6 periventricular and several cervical plaques
29	M	39	Remitting	2	Periventricular plaques
30	F	38	Remitting	1	Cervical and spinal cords plaques
31	F	51	Remitting	6	Many periventricular and several cervical plaques
32	F	38	Remitting	5	Periventricular plaques
33	F	28	Remitting	10	Periventricular and spinal cord plaques

34	M	31	Remitting	6	Several periventricular and cervical plaques
35	F	32	Remitting	2	5-6 periventricular plaques
36	M	40	Remitting	5	Periventricular and spinal cord plaques
37	F	31	Remitting	4	Periventricular plaques
38	F	33	Remitting	1	Periventricular plaques
39	M	37	Remitting	12	Many periventricular and several cervical plaques
40	M	32	Remitting	6	Cervical and spinal cords plaques

NC: new case.

Table A.2. Some predicted target genes of miR-9-5p and miR-106a-5p

Predicted targets of miR-9-5p and miR-106a-5p based on miRWalk that confirmed again in at least five prediction databases.

miR-9-5p	miR-106a-5p
RUNX1	IL1R
C-MAF	IL-6R
IL12A	IL-23R
ETS1	RORC
PIAS3	STAT1
STAT4	STAT3
STAT6	Hif1a
BCL6	CUI1
RXRA	IL12RB2
RARB	SMAD2
TSC1	SMAD4
FOXO1	SMAD6
	SMAD7
	RXRC
	TSC1

Table A.3. Validated targets of miR-9-5p and miR-106a-5p

miR-9					miR-106a	
EFNA1	ATP6V1C2	F2	FNBP1	PTPRK	ZNF598	CUL4A
SMARCA1	PLCB4	LPXN	CHSY1	PRG4	MTF1	XIAP
NRIP3	IGF2R	LINC00483	XRN2	SDC1	EIF4G2	SIRPA
MYF6	MDM4	NR6A1	HIST1H4H	EEF2K	GNB1	PTEN
LRP1	AVIL	MTX3	TWISTNB	ATP7A	RDH11	PAK7
SLC35E2	APBB2	AKR1CL1	ZBED3	CERS2	CCDC47	CYP19A1
HOXC12	CA13	IDS	VEGFA	ACADSB	HDHD1	TGFBR2
SYNE1	FLNB	ELF3	CHMP2B	COL12A1	EIF3M	FAS
STK3	IREB2	GNAT2	STMN1	PDZK1	WEE1	IL10
SLC7A2	KLRK1	SLC30A4	GRN	CAPZA1	RTN3	VEGFA
PLEKHB1	CDH3	IPO7	TTC7B	PPP4R2	MTMR3	ARID4B
RASSF8	MCC	WNT8A	TAGLN	SERAC1	RAD23B	RUNX1
PELP1	SYNE2	GIP	EFCAB14	TESK2	PPP2R1A	APP
ATG10	MAP1B	SLC22A5	FSTL3	LDLRAP1	PRPF8	RB1
SPTBN1	NFATC3	SPON2	BIK	MYH9	DLST	MYLIP
C7orf31	SPAG9	MAGEA2B	SPI1	KLF5	RTCA	HIPK3
CMTM2	ZNF407	ATL1	HLA-A	FAM46A	DCBLD2	CDKN1A
CERS4	SEC23IP	RHOV	CALML5	CCNDBP1	CHTF8	E2F1
PPAP2A	NBEA	NMNAT2	HTR3A	RBFOX2	HOXC11	sept2
KCNJ15	SLC2A5	LRRTM1	RNF44	MAP3K3	SDHA	SMG1
SUMF2	PQLC3	WNT6	TC2N	MMP13	KPNA2	
UGDH	C9orf89	NKX2-2	COLEC12	REST	CHST14	
CXXC5	NCOR2	SLC25A30	ID4	CDH1	AGO1	
TCL1B	P4HA2	CUEDC1	CNOT6	POU2F2	VDAC1	
EP300	MYLK	ALDH1A3	CD34	BCL6	RNF182	
AUH	NIN	MN1	SYNGR2	ETS1	NOTCH2	
TRRAP	FERMT1	ABCC1	SYPL1	RAB34	SIPAIL3	
DMXL1	PRKD3	SLC22A3	GFOD1	BACE1	ARHGAP5	
EOGT	SYAP1	AKR1B10	SRF	PRDM1	ARL9	
RCC2	TRPM7	KIF1B	SIRT1	NFKB1	TTLL12	
PIGB	GPBP1L1	E2F7	TGFBI	FOXO1	HEATR1	
NAV1	UHMK1	HN1L	SOCS5	NTRK3	SH3BP5L	
MESDC1	SLC39A14	CYP39A1	ID2	NR2E1	ZBTB47	
BOD1L1	SNX7	MORF4L1	FOXO3	ONECUT2	CKAP2	
ITGB3BP	LMNA	ARHGEF10	CCND1	CDX2	CYB561D1	
QARS	FBN2	RABGAP1	KLRC1	AP3B1	PRRC2A	
KIF1A	PXDN	TBC1D9	DSP	CCNG1	PELI1	
KMT2D	TBPL1	ATP11C	POGZ		RPH3A	
FAIM	NIPA1	FRMD4B	CCL19		TFG	
SNAI2	OPTN	VIM	POU2F1		COL2A1	