

Supplementary Table S10

CNS DLBCL-specific CSF microRNAs and signaling pathways. Processes specific for carcinogenesis and lymphoma-related disorders, are marked bold.

Reactome (miRPathDB)				
No	subcategory	q-value*	number of miRs observed	hsa-miRs
1	PTEN Regulation	8.495E-07	11	19a-3p; 16-5p; 148a-3p; 15a-5p; 19b-3p; 221-3p; 21-5p; 9-3p; 92a-3p; 20a-5p; 26a-5p
2	Intracellular signaling by second messengers	2.889E-06	12	19a-3p; 16-5p; 148a-3p; 15a-5p; 19b-3p; 221-3p; 21-5p; 9-3p; 15b-5p; 92a-3p; 20a-5p; 26a-5p
3	PIP3 activates AKT signaling	2.889E-06	12	19a-3p; 16-5p; 148a-3p; 15a-5p; 19b-3p; 221-3p; 21-5p; 9-3p; 15b-5p; 92a-3p; 20a-5p; 26a-5p
4	Transcriptional Regulation by TP53	2.889E-06	12	19a-3p; 16-5p; 148a-3p; 15a-5p; 19b-3p; 221-3p; 21-5p; 15b-5p; 17-3p; 92a-3p; 20a-5p; 26a-5p
5	Signal Transduction	7.223E-06	12	19a-3p; 16-5p; 148a-3p; 15a-5p; 19b-3p; 221-3p; 21-5p; 9-3p; 15b-5p; 9-5p; 20a-5p; 26a-5p
6	Immune System	3.434E-05	10	19a-3p; 16-5p; 148a-3p; 15a-5p; 221-3p; 21-5p; 9-3p; 15b-5p; 17-3p; 20a-5p
7	Oxidative Stress Induced Senescence	5.562E-05	11	19a-3p; 16-5p; 15a-5p; 221-3p; 423-5p; 21-5p; 9-3p; 15b-5p; 92a-3p; 20a-5p; 26a-5p
8	Signaling by TGF-beta family members	6.878E-05	9	19a-3p; 16-5p; 148a-3p; 15a-5p; 19b-3p; 21-5p; 15b-5p; 92a-3p; 20a-5p
9	Pre-NOTCH Expression and Processing	9.273E-05	9	16-5p; 148a-3p; 15a-5p; 221-3p; 9-3p; 15b-5p; 92a-3p; 9-5p; 20a-5p
10	Estrogen-dependent gene expression	0.0001196	10	19a-3p; 16-5p; 148a-3p; 15a-5p; 221-3p; 21-5p; 15b-5p; 17-3p; 92a-3p; 26a-5p
11	Intra-Golgi and retrograde Golgi-to-ER traffic	0.0001196	5	16-5p; 148a-3p; 15a-5p; 15b-5p; 92a-3p
12	ESR-mediated signaling	0.0001264	11	19a-3p; 16-5p; 148a-3p; 15a-5p; 221-3p; 21-5p; 15b-5p; 17-3p; 92a-3p; 9-5p; 26a-5p
13	Deubiquitination	0.0001283	8	19a-3p; 16-5p; 15a-5p; 19b-3p; 221-3p; 15b-5p; 92a-3p; 20a-5p
14	Regulation of RUNX1 Expression and Activity	0.0001283	10	19a-3p; 16-5p; 148a-3p; 15a-5p; 19b-3p; 221-3p; 21-5p; 15b-5p; 20a-5p; 26a-5p
15	Mitotic G1-G1S phases	0.0001313	8	16-5p; 15a-5p; 221-3p; 423-5p; 15b-5p; 92a-3p; 20a-5p; 26a-5p
16	Vesicle-mediated transport	0.0002082	7	19a-3p; 16-5p; 148a-3p; 15a-5p; 15b-5p; 92a-3p; 20a-5p

KEGG (miRPathDB)				
No	subcategory	q-value	number of miRs observed	hsa-miRs
1	Prostate cancer	9.729E-05	13	19a-3p; 16-5p; 148a-3p; 15a-5p; 221-3p; 21-5p; 9-3p; 15b-5p; 92a-3p; 25-3p; 9-5p; 20a-5p; 26a-5p
2	MicroRNAs in cancer	0.0001047	14	19a-3p; 16-5p; 148a-3p; 15a-5p; 221-3p; 21-5p; 9-3p; 15b-5p; 17-3p; 92a-3p; 25-3p; 9-5p; 20a-5p; 26a-5p
3	Small cell lung cancer	0.0001047	10	19a-3p; 16-5p; 148a-3p; 15a-5p; 221-3p; 21-5p; 9-3p; 15b-5p; 20a-5p; 26a-5p
4	Viral carcinogenesis	0.0001047	11	19a-3p; 16-5p; 148a-3p; 15a-5p; 221-3p; 423-5p; 9-3p; 15b-5p; 92a-3p; 25-3p; 26a-5p
5	Hepatitis B	0.0004127	11	19a-3p; 16-5p; 148a-3p; 15a-5p; 221-3p; 21-5p; 9-3p; 15b-5p; 25-3p; 20a-5p; 26a-5p
6	Pathways in cancer	0.0005077	12	19a-3p; 16-5p; 148a-3p; 15a-5p; 221-3p; 21-5p; 9-3p; 15b-5p; 92a-3p; 9-5p; 20a-5p; 26a-5p
7	HTLV-I infection	0.0006449	9	19a-3p; 16-5p; 148a-3p; 15a-5p; 221-3p; 21-5p; 15b-5p; 9-5p; 26a-5p

8	Melanoma	0.0006449	10	19a-3p; 16-5p; 15a-5p; 221-3p; 21-5p; 9-3p; 15b-5p; 25-3p; 20a-5p; 26a-5p
9	p53 signaling pathway	0.0006449	10	19a-3p; 16-5p; 148a-3p; 15a-5p; 19b-3p; 221-3p; 21-5p; 15b-5p; 20a-5p; 26a-5p
10	Bladder cancer	0.0008959	9	19a-3p; 16-5p; 148a-3p; 221-3p; 21-5p; 9-3p; 15b-5p; 25-3p; 20a-5p
11	Cell cycle	0.0008959	10	16-5p; 148a-3p; 15a-5p; 221-3p; 423-5p; 21-5p; 15b-5p; 92a-3p; 20a-5p; 26a-5p
12	Influenza A	0.0008959	6	19a-3p; 16-5p; 15a-5p; 221-3p; 21-5p; 15b-5p
13	Toxoplasmosis	0.0009062	6	19a-3p; 148a-3p; 15a-5p; 21-5p; 9-3p; 15b-5p
14	Epstein-Barr virus infection	0.0009714	8	19a-3p; 16-5p; 148a-3p; 15a-5p; 221-3p; 21-5p; 15b-5p; 92a-3p
15	Acute myeloid leukemia	0.0014885	7	19a-3p; 16-5p; 148a-3p; 15a-5p; 221-3p; 9-3p; 15b-5p
16	Chronic myeloid leukemia	0.0014885	10	19a-3p; 16-5p; 148a-3p; 15a-5p; 221-3p; 21-5p; 9-3p; 15b-5p; 20a-5p; 26a-5p
17	Measles	0.0014885	7	19a-3p; 16-5p; 15a-5p; 221-3p; 21-5p; 15b-5p; 26a-5p
18	Pancreatic cancer	0.0014885	9	19a-3p; 16-5p; 148a-3p; 15a-5p; 221-3p; 21-5p; 9-3p; 15b-5p; 20a-5p
19	Hippo signaling pathway	0.0028012	7	19a-3p; 16-5p; 148a-3p; 15a-5p; 221-3p; 21-5p; 15b-5p
20	Non-small cell lung cancer	0.0029488	8	19a-3p; 16-5p; 15a-5p; 221-3p; 21-5p; 9-3p; 15b-5p; 26a-5p
21	Prolactin signaling pathway	0.0029488	7	19a-3p; 19b-3p; 221-3p; 21-5p; 9-3p; 15b-5p; 26a-5p
22	Colorectal cancer	0.0046909	8	19a-3p; 16-5p; 148a-3p; 15a-5p; 221-3p; 21-5p; 15b-5p; 20a-5p
23	FoxO signaling pathway	0.0046909	9	19a-3p; 16-5p; 148a-3p; 15a-5p; 221-3p; 21-5p; 15b-5p; 9-5p; 26a-5p
24	Insulin signaling pathway	0.0050551	6	19a-3p; 16-5p; 15a-5p; 9-3p; 15b-5p; 26a-5p
25	Neurotrophin signaling pathway	0.0050551	7	19a-3p; 16-5p; 148a-3p; 15a-5p; 21-5p; 9-3p; 15b-5p
26	PI3K-Akt signaling pathway	0.0065548	8	19a-3p; 16-5p; 148a-3p; 15a-5p; 221-3p; 21-5p; 15b-5p; 26a-5p
27	Oocyte meiosis	0.0065806	5	16-5p; 15a-5p; 9-3p; 15b-5p; 26a-5p
28	TNF signaling pathway	0.0065806	5	19a-3p; 15a-5p; 221-3p; 21-5p; 9-3p
29	Endometrial cancer	0.0105322	7	19a-3p; 15a-5p; 221-3p; 21-5p; 9-3p; 15b-5p; 25-3p
30	Ubiquitin mediated proteolysis	0.0114871	3	16-5p; 15a-5p; 15b-5p
31	Glioma	0.0115167	8	19a-3p; 16-5p; 221-3p; 21-5p; 9-3p; 15b-5p; 20a-5p; 26a-5p
32	Non-alcoholic fatty liver disease NAFLD	0.0115167	4	19a-3p; 148a-3p; 221-3p; 21-5p
33	Proteoglycans in cancer	0.0116473	8	19a-3p; 16-5p; 148a-3p; 221-3p; 21-5p; 9-3p; 15b-5p; 26a-5p
34	Leishmaniasis	0.0116859	3	21-5p; 9-3p; 15b-5p
35	RNA degradation	0.0116859	3	19a-3p; 148a-3p; 92a-3p
36	Renal cell carcinoma	0.0142412	6	19a-3p; 16-5p; 15a-5p; 21-5p; 9-3p; 15b-5p
37	Wnt signaling pathway	0.0147174	5	19a-3p; 148a-3p; 15a-5p; 15b-5p; 26a-5p
38	TGF-beta signaling pathway	0.0174426	5	19a-3p; 148a-3p; 21-5p; 15b-5p; 20a-5p
39	Shigellosis	0.017775	4	19a-3p; 148a-3p; 15a-5p; 9-3p
40	Pathogenic Escherichia coli infection	0.0188539	4	221-3p; 423-5p; 92a-3p; 25-3p
41	Chagas disease American trypanosomiasis	0.0199664	4	19a-3p; 21-5p; 9-3p; 15b-5p
42	ErbB signaling pathway	0.0203374	6	19a-3p; 16-5p; 15a-5p; 221-3p; 9-3p; 15b-5p
43	Tuberculosis	0.0277519	3	221-3p; 21-5p; 9-3p
44	T cell receptor signaling pathway	0.03574	4	19a-3p; 15a-5p; 9-3p; 15b-5p
45	Focal adhesion	0.049707	6	19a-3p; 16-5p; 148a-3p; 15a-5p; 221-3p; 15b-5p
46	Hepatitis C	0.049707	4	19a-3p; 148a-3p; 221-3p; 9-3p
47	Toll-like receptor signaling pathway	0.049707	3	19a-3p; 21-5p; 9-3p

*p-value after the Benjamini-Hochberg adjustment