

**Supplementary Table S1.** A total of 228 miRNAs significantly correlated with the changes in HAM-D score for SSRI at week 2 after FDR correction.

has-miRNA	coefficient	p-value	Adjusted	has-miRNA	coefficient	p-value	Adjusted	has-miRNA	coefficient	p-value	Adjusted
			p-value (FDR)				p-value (FDR)				p-value (FDR)
miR-483-5p	2.495	7.90E-05	0.0436	miR-4726-5p	2.923	0.0013	0.0183	miR-4751	2.602	0.0038	0.0271
miR-3151-5p	3.510	0.0001	0.0317	miR-937-5p	2.666	0.0013	0.0185	miR-6870-5p	2.070	0.0038	0.0268
miR-7109-5p	2.848	0.0001	0.0266	miR-4294	2.097	0.0013	0.0181	miR-6731-3p	4.188	0.0038	0.0266
miR-6807-5p	2.381	0.0002	0.0225	miR-4769-3p	2.648	0.0015	0.0198	miR-6880-5p	1.967	0.0039	0.0268
miR-30c-1-3p	2.138	0.0003	0.0276	miR-6845-5p	3.005	0.0016	0.0205	miR-3135b	2.552	0.0039	0.0265
miR-6769a-3p	3.474	0.0003	0.0234	miR-6127	2.389	0.0016	0.0201	miR-6825-5p	1.585	0.0040	0.0266
miR-7111-3p	3.241	0.0003	0.0232	miR-197-3p	2.742	0.0016	0.0198	miR-4463	2.856	0.0040	0.0265
miR-6796-3p	2.836	0.0003	0.0211	miR-1281	2.741	0.0017	0.0198	miR-7114-5p	1.637	0.0041	0.0269
miR-1249-5p	2.664	0.0003	0.0188	miR-874-5p	2.214	0.0018	0.0212	miR-6824-5p	2.167	0.0042	0.0274
miR-4534	2.329	0.0003	0.0170	miR-6861-3p	2.541	0.0018	0.0213	miR-4749-3p	2.409	0.0043	0.0276
miR-4646-3p	3.164	0.0003	0.0161	miR-7107-5p	2.371	0.0019	0.0211	miR-6779-5p	2.519	0.0044	0.0281
miR-642b-3p	2.659	0.0004	0.0172	miR-6889-5p	2.135	0.0019	0.0212	miR-328-5p	2.798	0.0045	0.0280
miR-7111-5p	2.765	0.0004	0.0160	miR-1229-5p	2.691	0.0020	0.0220	miR-557	2.425	0.0045	0.0277
miR-1202	2.514	0.0004	0.0153	miR-6829-5p	2.981	0.0021	0.0225	miR-4783-3p	2.604	0.0046	0.0282
miR-4526	3.096	0.0004	0.0148	miR-6891-5p	2.360	0.0022	0.0230	miR-4723-3p	1.991	0.0047	0.0283
miR-193b-3p	3.588	0.0005	0.0175	miR-92a-2-5p	1.797	0.0022	0.0230	miR-4259	2.583	0.0048	0.0286
miR-7112-5p	2.446	0.0006	0.0186	miR-671-5p	1.976	0.0023	0.0230	miR-3162-5p	2.479	0.0048	0.0284
miR-6774-5p	2.606	0.0006	0.0177	miR-3679-3p	2.464	0.0023	0.0229	miR-4417	2.533	0.0050	0.0294
miR-642a-3p	2.116	0.0006	0.0176	miR-5196-5p	2.537	0.0024	0.0233	miR-5090	2.479	0.0051	0.0296
miR-6510-5p	2.510	0.0007	0.0181	miR-4479	3.048	0.0024	0.0232	miR-4725-5p	2.719	0.0053	0.0303
miR-6891-3p	3.405	0.0007	0.0176	miR-3141	2.109	0.0025	0.0230	miR-6768-5p	1.747	0.0053	0.0300
miR-7150	2.328	0.0007	0.0181	miR-6808-5p	2.117	0.0025	0.0230	miR-8089	2.655	0.0053	0.0298
miR-3614-5p	2.691	0.0007	0.0176	miR-2861	4.272	0.0025	0.0229	miR-3154	1.659	0.0053	0.0295
miR-4758-3p	2.784	0.0008	0.0174	miR-4687-5p	2.572	0.0025	0.0227	miR-6786-5p	4.067	0.0055	0.0305
miR-7155-5p	2.668	0.0008	0.0170	miR-6085	2.660	0.0026	0.0229	miR-658	1.832	0.0057	0.0312

<b>miR-6124</b>	2.337	0.0008	0.0168	<b>miR-1275</b>	2.472	0.0027	0.0233	<b>miR-1233-5p</b>	2.322	0.0058	0.0316
<b>miR-6769b-5p</b>	2.714	0.0008	0.0171	<b>miR-675-5p</b>	2.019	0.0028	0.0237	<b>miR-6782-5p</b>	2.515	0.0059	0.0317
<b>miR-1273g-3p</b>	1.903	0.0009	0.0178	<b>miR-4687-3p</b>	2.589	0.0029	0.0239	<b>miR-3187-3p</b>	1.492	0.0060	0.0319
<b>miR-3158-5p</b>	2.231	0.0010	0.0182	<b>miR-6781-5p</b>	2.994	0.0029	0.0243	<b>miR-4689</b>	2.360	0.0064	0.0334
<b>miR-6738-5p</b>	3.034	0.0010	0.0181	<b>miR-1913</b>	2.632	0.0029	0.0239	<b>miR-6775-5p</b>	2.339	0.0067	0.0349
<b>miR-4723-5p</b>	1.987	0.0010	0.0184	<b>miR-6727-3p</b>	2.472	0.0030	0.0242	<b>miR-3197</b>	2.672	0.0069	0.0357
<b>miR-652-5p</b>	2.087	0.0010	0.0179	<b>miR-6797-3p</b>	2.389	0.0031	0.0247	<b>miR-3196</b>	4.162	0.0070	0.0358
<b>miR-6785-3p</b>	4.040	0.0011	0.0192	<b>miR-296-5p</b>	2.814	0.0031	0.0243	<b>miR-4728-3p</b>	2.185	0.0070	0.0355
<b>miR-6515-3p</b>	2.940	0.0012	0.0188	<b>miR-6845-3p</b>	2.814	0.0033	0.0255	<b>miR-6716-5p</b>	2.347	0.0071	0.0359
<b>miR-625-3p</b>	4.040	0.0012	0.0184	<b>miR-1343-5p</b>	2.584	0.0034	0.0255	<b>miR-532-3p</b>	2.731	0.0072	0.0359
<b>miR-6766-3p</b>	2.602	0.0012	0.0185	<b>miR-6894-3p</b>	2.026	0.0034	0.0253	<b>miR-6762-5p</b>	2.696	0.0072	0.0356
<b>miR-4739</b>	3.057	0.0012	0.0180	<b>miR-371a-5p</b>	2.635	0.0035	0.0257	<b>miR-4656</b>	2.146	0.0074	0.0361
<b>miR-4731-5p</b>	3.231	0.0013	0.0183	<b>miR-6799-5p</b>	2.109	0.0037	0.0268	<b>miR-6830-5p</b>	3.314	0.0076	0.0368
<b>miR-6816-5p</b>	3.085	0.0079	0.0379	<b>miR-6087</b>	3.338	0.0116	0.0418	<b>miR-6865-3p</b>	2.053	0.0159	0.0459
<b>miR-6749-5p</b>	2.485	0.0079	0.0377	<b>miR-6819-5p</b>	2.584	0.0117	0.0418	<b>miR-6885-3p</b>	2.078	0.0159	0.0457
<b>miR-7845-5p</b>	2.275	0.0081	0.0381	<b>miR-4530</b>	1.736	0.0117	0.0417	<b>miR-4749-5p</b>	2.063	0.0161	0.0460
<b>miR-6757-5p</b>	2.081	0.0081	0.0380	<b>miR-4433b-3p</b>	2.343	0.0120	0.0423	<b>miR-4327</b>	1.907	0.0161	0.0459
<b>miR-6797-5p</b>	2.479	0.0081	0.0377	<b>miR-6846-5p</b>	1.975	0.0120	0.0422	<b>miR-8071</b>	1.559	0.0163	0.0463
<b>miR-6879-5p</b>	2.274	0.0081	0.0374	<b>miR-6877-5p</b>	2.464	0.0121	0.0424	<b>miR-4701-5p</b>	2.787	0.0165	0.0465
<b>miR-6859-3p</b>	2.566	0.0081	0.0371	<b>miR-135a-3p</b>	2.071	0.0123	0.0427	<b>miR-4673</b>	2.080	0.0166	0.0466
<b>miR-6752-5p</b>	2.841	0.0082	0.0373	<b>miR-4507</b>	1.868	0.0124	0.0427	<b>miR-4763-5p</b>	1.812	0.0167	0.0466
<b>miR-6858-3p</b>	2.417	0.0084	0.0378	<b>miR-3180</b>	2.322	0.0124	0.0424	<b>miR-6813-3p</b>	2.279	0.0173	0.0479
<b>miR-4485-5p</b>	1.345	0.0085	0.0381	<b>miR-874-3p</b>	2.049	0.0125	0.0427	<b>miR-6769a-5p</b>	1.973	0.0176	0.0485
<b>miR-1249-3p</b>	2.795	0.0086	0.0379	<b>miR-3131</b>	2.007	0.0127	0.0432	<b>miR-548q</b>	1.668	0.0176	0.0483
<b>miR-760</b>	2.132	0.0087	0.0379	<b>miR-3195</b>	2.195	0.0128	0.0429	<b>miR-4685-5p</b>	2.596	0.0176	0.0481
<b>miR-6792-5p</b>	2.524	0.0087	0.0379	<b>miR-6805-5p</b>	2.802	0.0129	0.0430	<b>miR-3652</b>	1.721	0.0176	0.0479
<b>miR-6842-5p</b>	1.600	0.0087	0.0376	<b>miR-6860</b>	1.931	0.0130	0.0433	<b>miR-4443</b>	1.424	0.0178	0.0481
<b>miR-1228-5p</b>	3.208	0.0088	0.0376	<b>miR-6724-5p</b>	2.303	0.0132	0.0435	<b>miR-4758-5p</b>	2.379	0.0178	0.0479
<b>miR-3147</b>	2.260	0.0092	0.0390	<b>miR-6875-5p</b>	2.314	0.0132	0.0433	<b>miR-3122</b>	2.066	0.0178	0.0477

<b>miR-5572</b>	2.286	0.0093	0.0390	<b>miR-5698</b>	1.852	0.0132	0.0431	<b>miR-6812-5p</b>	2.044	0.0183	0.0487
<b>miR-6880-3p</b>	2.196	0.0093	0.0390	<b>miR-6810-3p</b>	2.124	0.0134	0.0435	<b>miR-3648</b>	2.965	0.0184	0.0489
<b>miR-6786-3p</b>	2.188	0.0094	0.0389	<b>miR-6813-5p</b>	2.228	0.0135	0.0435	<b>miR-4731-3p</b>	2.051	0.0186	0.0491
<b>miR-4750-5p</b>	1.518	0.0097	0.0398	<b>miR-6821-5p</b>	2.054	0.0135	0.0434	<b>miR-2116-3p</b>	2.121	0.0186	0.0489
<b>miR-4271</b>	1.940	0.0098	0.0401	<b>miR-1237-5p</b>	3.476	0.0135	0.0432	<b>miR-92b-5p</b>	1.972	0.0188	0.0493
<b>miR-575</b>	1.422	0.0098	0.0400	<b>miR-4433a-5p</b>	2.190	0.0138	0.0438	<b>miR-1237-3p</b>	1.640	0.0189	0.0491
<b>miR-4462</b>	2.103	0.0099	0.0397	<b>miR-665</b>	1.839	0.0139	0.0440	<b>miR-4707-5p</b>	1.927	0.0191	0.0494
<b>miR-187-5p</b>	1.553	0.0099	0.0397	<b>miR-6893-3p</b>	1.625	0.0140	0.0439	<b>miR-4632-5p</b>	1.715	0.0191	0.0493
<b>miR-6877-3p</b>	2.019	0.0100	0.0398	<b>miR-6076</b>	1.590	0.0140	0.0438	<b>miR-7847-3p</b>	2.132	0.0191	0.0491
<b>miR-4728-5p</b>	2.579	0.0100	0.0395	<b>miR-6765-3p</b>	1.376	0.0141	0.0437	<b>miR-6840-3p</b>	2.235	0.0193	0.0493
<b>miR-1228-3p</b>	2.624	0.0100	0.0393	<b>miR-4484</b>	1.768	0.0142	0.0439	<b>miR-3928-3p</b>	1.947	0.0194	0.0494
<b>miR-6875-3p</b>	2.599	0.0103	0.0401	<b>miR-550a-5p</b>	1.921	0.0143	0.0438	<b>miR-1914-3p</b>	2.302	0.0195	0.0494
<b>miR-1224-3p</b>	2.154	0.0104	0.0402	<b>miR-6800-3p</b>	2.350	0.0144	0.0438	<b>miR-197-5p</b>	2.050	0.0196	0.0494
<b>miR-4279</b>	2.022	0.0109	0.0416	<b>miR-718</b>	2.307	0.0145	0.0441	<b>miR-6801-3p</b>	2.218	0.0197	0.0494
<b>miR-6729-3p</b>	2.113	0.0109	0.0417	<b>miR-6862-3p</b>	1.666	0.0148	0.0448	<b>miR-3180-3p</b>	2.286	0.0197	0.0492
<b>miR-4763-3p</b>	1.893	0.0110	0.0414	<b>miR-6827-5p</b>	2.062	0.0152	0.0455	<b>miR-6858-5p</b>	2.107	0.0197	0.0490
<b>miR-7113-3p</b>	2.019	0.0110	0.0413	<b>miR-1225-5p</b>	1.959	0.0152	0.0454	<b>miR-1236-3p</b>	2.211	0.0198	0.0491
<b>miR-1227-5p</b>	2.268	0.0110	0.0410	<b>miR-2110</b>	2.289	0.0152	0.0451	<b>miR-7108-5p</b>	2.042	0.0202	0.0498
<b>miR-4459</b>	1.632	0.0111	0.0410	<b>miR-4695-3p</b>	1.605	0.0155	0.0458	<b>miR-4800-5p</b>	1.700	0.0204	0.0500
<b>miR-4449</b>	2.224	0.0114	0.0418	<b>miR-6787-5p</b>	2.243	0.0155	0.0456	<b>miR-6851-5p</b>	1.997	0.0204	0.0498
<b>miR-6803-5p</b>	2.620	0.0114	0.0418	<b>miR-371b-5p</b>	1.913	0.0156	0.0455	<b>miR-3185</b>	1.688	0.0205	0.0498
<b>miR-4651</b>	2.496	0.0115	0.0418	<b>miR-6867-3p</b>	2.123	0.0156	0.0454	<b>miR-4741</b>	1.701	0.0206	0.0499