

**Table S1**

<b>5' Fragments of miR-183-5p</b>	<b>Theoretical Mass (m/z)</b>	<b>Observed Mass (m/z)</b>	<b>Mass Difference (m/z)</b>	<b>Mass Accuracy (ppm)</b>
pUAUGp'	1367.1242	1367.1172	0.0070	5.090979
pUAUGGp'	1712.1716	1712.1729	-0.0013	-0.759270
pUAUGGCp'	2017.2129	2017.2159	-0.0030	-1.492158
pUAUGGCp'	2346.2654	2346.2705	-0.0051	-2.173667
pUAUGGCACp'	2651.3067	2651.3093	-0.0026	-0.984420
pUAUGGCACUp'	2957.3320	2957.3374	-0.0054	-1.829352
pUAUGGCACUGp'	3302.3794	3302.3876	-0.0082	-2.473974
pUAUGGCACUGGp'	3647.4269	3647.4352	-0.0083	-2.286543
pUAUGGCACUGGUp'	3953.4522	3953.4600	-0.0078	-1.983077
pUAUGGCACUGGUAp'	4282.5047	4282.5100	-0.0053	-1.242264
pUAUGGCACUGGUAGp'	4627.5521	4627.5561	-0.0040	-0.860066
pUAUGGCACUGGUAGAp'	4956.6046	4956.6056	-0.0010	-0.193681
pUAUGGCACUGGUAGAAp'	5285.6572	5285.6617	-0.0045	-0.858928
pUAUGGCACUGGUAGAAUp'	5591.6825	5591.6681	0.0144	2.568100
pUAUGGCACUGGUAGAAUUp'	5897.7078	5897.6658	0.0420	7.114629
pUAUGGCACUGGUAGAAUUCp'	6202.7491	6202.7592	-0.0102	-1.636371
pUAUGGCACUGGUAGAAUUCAp'	6531.8016	6531.7544	0.0472	7.221591
pUAUGGCACUGGUAGAAUUCACp'	6836.8429	6836.8081	0.0347	5.082755
pUAUGGCACUGGUAGAAUUCACU	7080.91239	7080.8793	0.0331	4.673127
				RMS = 3.4

**Table S2**

<b>3' Fragments of miR-183-5p</b>	<b>Theoretical Mass (m/z)</b>	<b>Observed Mass (m/z)</b>	<b>Mass Difference (m/z)</b>	<b>Mass Accuracy (ppm)</b>
UCACU	1490.2372	1490.2265	0.0107	7.186775
UUCACU	1796.2625	1796.2595	0.0030	1.675702
AUUCACU	2125.3150	2125.3164	-0.0014	-0.644610
AAUUCACU	2454.3676	2454.3708	-0.0033	-1.324170
GAAUUCACU	2799.4150	2799.4186	-0.0036	-1.293127
AGAAUUCACU	3128.4675	3128.4737	-0.0062	-1.981801
UAGAAUUCACU	3434.4928	3434.4959	-0.0031	-0.902608
GUAGAAUUCACU	3779.5402	3779.5492	-0.0090	-2.370659
GGUAGAAUUCACU	4124.5877	4124.5976	-0.0099	-2.407513
UGGUAGAAUUCACU	4430.6130	4430.6103	0.0027	0.602625
CUGGUAGAAUUCACU	4735.6543	4735.6565	-0.0022	-0.473008
ACUGGUAGAAUUCACU	5064.7068	5064.7033	0.0035	0.687108
CACUGGUAGAAUUCACU	5369.7481	5369.7442	0.0039	0.720704
GCACUGGUAGAAUUCACU	5714.7955	5714.7768	0.0187	3.272208
GGCACUGGUAGAAUUCACU	6059.8429	6059.8235	0.0194	3.206354
UGGCACUGGUAGAAUUCACU	6365.8682	6365.8665	0.0017	0.273333
AUGGCACUGGUAGAAUUCACU	6694.9208	6694.9026	0.0182	2.712504
pUAUGGCACUGGUAGAAUUCACU	7080.91239	7080.8793	0.0331	4.673127
				RMS = 2.6

**Table S3**

<b>5' Fragments of miR-124a</b>	<b>Theoretical Mass (m/z)</b>	<b>Observed Mass (m/z)</b>	<b>Mass Difference (m/z)</b>	<b>Mass Accuracy (ppm)</b>
pUUAAp'	1351.1293	1351.1265	0.0027	2.035335
pUUAAGp'	1696.1767	1696.1762	0.0005	0.282989
pUUAAGGp'	2041.2241	2041.2213	0.0028	1.381524
pUUAAGGCp'	2346.2654	2346.2657	-0.0003	-0.127863
pUUAAGGCp'	2675.3179	2675.3159	0.0020	0.755050
pUUAAGGCACp'	2980.3592	2980.3606	-0.0014	-0.466387
pUUAAGGCACGp'	3325.4066	3325.4066	0.0000	0.012029
pUUAAGGCACGCGp'	3630.4479	3630.4424	0.0055	1.523228
pUUAAGGCACGCGGp'	3975.4954	3975.4936	0.0018	0.445228
pUUAAGGCACGCGGp'	4320.5428	4320.5307	0.0121	2.800574
pUUAAGGCACGCGGUp'	4626.5681	4626.5604	0.0077	1.664301
pUUAAGGCACGCGGUGp'	4971.6155	4971.5957	0.0198	3.990655
pUUAAGGCACGCGGUGAp'	5300.6681	5300.6284	0.0397	7.482076
pUUAAGGCACGCGGUGAAp'	5629.7206	5629.6949	0.0257	4.561505
pUUAAGGCACGCGGUGAAUp'	5935.7459	5935.7009	0.0450	7.577818
pUUAAGGCACGCGGUGAAUGp'	6280.7933	6280.7223	0.0710	11.30590
pUUAAGGCACGCGGUGAAUGCp'	6585.8346	6585.7731	0.0615	9.338224
pUUAAGGCACGCGGUGAAUGCCp'	6890.8759	6890.8150	0.0609	8.834871
pUUAAGGCACGCGGUGAAUGCCA	7157.9726	7157.8839	0.0887	12.39737
				RMS = 5.7

**Table S4**

<b>3' Fragments of miR-124a</b>	<b>Theoretical Mass (m/z)</b>	<b>Observed Mass (m/z)</b>	<b>Mass Difference (m/z)</b>	<b>Mass Accuracy (ppm)</b>
GCCA	1223.2340	1223.2338	0.0002	0.196201
UGCCA	1529.2593	1529.2593	0.0000	0.026156
AUGCCA	1858.3119	1858.3117	0.0002	0.086100
AAUGCCA	2187.3644	2187.3645	-0.0001	-0.054861
GAAUGCCA	2532.4118	2532.4133	-0.0015	-0.588372
UGAAUGCCA	2838.4371	2838.4385	-0.0014	-0.489706
GUGAAUGCCA	3183.4846	3183.4851	-0.0005	-0.172767
GGUGAAUGCCA	3528.5320	3528.5285	0.0035	0.986246
CGGUGAAUGCCA	3833.5733	3833.5679	0.0054	1.400782
GCGGUGAAUGCCA	4178.6207	4178.6149	0.0058	1.388018
CGCGGUGAAUGCCA	4483.6620	4483.6397	0.0223	4.971383
ACGCGGUGAAUGCCA	4812.7145	4812.6943	0.0202	4.199293
CACGCGGUGAAUGCCA	5117.7558	5117.7402	0.0156	3.048211
GCACGCGGUGAAUGCCA	5462.8032	5462.7601	0.0431	7.895214
GGCACGCGGUGAAUGCCA	5807.8507	5807.7881	0.0626	10.77163
AGGCACGCGGUGAAUGCCA	6136.9032	6136.8277	0.0755	12.29936
AAGGCACGCGGUGAAUGCCA	6465.9557	6465.8820	0.0737	11.39816
UAAGGCACGCGGUGAAUGCCA	6771.9810	6771.8908	0.0902	13.32107
pUUAAGGCACGCGGUGAAUGCCA	7157.9726	7157.8839	0.0887	12.39737
				RMS = 6.7