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## Supplementary Tables

**Table S1.** List of 533 KIRC samples.

TCGA_3Z_A93Z_01	TCGA_B0_4821_01	TCGA_B8_4620_01	TCGA_BP_4969_01	TCGA_CJ_4916_01
TCGA_6D_AA2E_01	TCGA_B0_4822_01	TCGA_B8_4621_01	TCGA_BP_4970_01	TCGA_CJ_4918_01
TCGA_A3_3306_01	TCGA_B0_4823_01	TCGA_B8_4622_01	TCGA_BP_4971_01	TCGA_CJ_4920_01
TCGA_A3_3307_01	TCGA_B0_4824_01	TCGA_B8_5158_01	TCGA_BP_4972_01	TCGA_CJ_4923_01
TCGA_A3_3308_01	TCGA_B0_4827_01	TCGA_B8_5159_01	TCGA_BP_4973_01	TCGA_CJ_5671_01
TCGA_A3_3311_01	TCGA_B0_4828_01	TCGA_B8_5162_01	TCGA_BP_4974_01	TCGA_CJ_5672_01
TCGA_A3_3313_01	TCGA_B0_4833_01	TCGA_B8_5163_01	TCGA_BP_4975_01	TCGA_CJ_5675_01
TCGA_A3_3316_01	TCGA_B0_4834_01	TCGA_B8_5164_01	TCGA_BP_4976_01	TCGA_CJ_5676_01
TCGA_A3_3317_01	TCGA_B0_4836_01	TCGA_B8_5165_01	TCGA_BP_4977_01	TCGA_CJ_5677_01
TCGA_A3_3319_01	TCGA_B0_4837_01	TCGA_B8_5545_01	TCGA_BP_4981_01	TCGA_CJ_5678_01
TCGA_A3_3320_01	TCGA_B0_4838_01	TCGA_B8_5546_01	TCGA_BP_4982_01	TCGA_CJ_5679_01
TCGA_A3_3322_01	TCGA_B0_4839_01	TCGA_B8_5549_01	TCGA_BP_4983_01	TCGA_CJ_5680_01
TCGA_A3_3323_01	TCGA_B0_4841_01	TCGA_B8_5550_01	TCGA_BP_4985_01	TCGA_CJ_5681_01
TCGA_A3_3324_01	TCGA_B0_4842_01	TCGA_B8_5551_01	TCGA_BP_4986_01	TCGA_CJ_5682_01
TCGA_A3_3325_01	TCGA_B0_4843_01	TCGA_B8_5552_01	TCGA_BP_4987_01	TCGA_CJ_5683_01
TCGA_A3_3326_01	TCGA_B0_4844_01	TCGA_B8_5553_01	TCGA_BP_4988_01	TCGA_CJ_5684_01
TCGA_A3_3328_01	TCGA_B0_4845_01	TCGA_B8_A54D_01	TCGA_BP_4989_01	TCGA_CJ_5686_01
TCGA_A3_3329_01	TCGA_B0_4846_01	TCGA_B8_A54E_01	TCGA_BP_4991_01	TCGA_CJ_5689_01
TCGA_A3_3331_01	TCGA_B0_4847_01	TCGA_B8_A54F_01	TCGA_BP_4992_01	TCGA_CJ_6027_01
TCGA_A3_3335_01	TCGA_B0_4848_01	TCGA_B8_A54G_01	TCGA_BP_4993_01	TCGA_CJ_6028_01
TCGA_A3_3343_01	TCGA_B0_4849_01	TCGA_B8_A54H_01	TCGA_BP_4994_01	TCGA_CJ_6030_01
TCGA_A3_3346_01	TCGA_B0_4852_01	TCGA_B8_A54I_01	TCGA_BP_4995_01	TCGA_CJ_6031_01
TCGA_A3_3347_01	TCGA_B0_4945_01	TCGA_B8_A54J_01	TCGA_BP_4998_01	TCGA_CJ_6032_01
TCGA_A3_3349_01	TCGA_B0_5075_01	TCGA_B8_A54K_01	TCGA_BP_4999_01	TCGA_CJ_6033_01
TCGA_A3_3351_01	TCGA_B0_5077_01	TCGA_B8_A7U6_01	TCGA_BP_5000_01	TCGA_CW_5580_01
TCGA_A3_3352_01	TCGA_B0_5080_01	TCGA_B8_A8YJ_01	TCGA_BP_5001_01	TCGA_CW_5581_01
TCGA_A3_3357_01	TCGA_B0_5081_01	TCGA_BP_4158_01	TCGA_BP_5004_01	TCGA_CW_5583_01
TCGA_A3_3358_01	TCGA_B0_5083_01	TCGA_BP_4159_01	TCGA_BP_5006_01	TCGA_CW_5584_01
TCGA_A3_3359_01	TCGA_B0_5084_01	TCGA_BP_4160_01	TCGA_BP_5007_01	TCGA_CW_5585_01
TCGA_A3_3362_01	TCGA_B0_5085_01	TCGA_BP_4161_01	TCGA_BP_5008_01	TCGA_CW_5587_01
TCGA_A3_3363_01	TCGA_B0_5088_01	TCGA_BP_4162_01	TCGA_BP_5009_01	TCGA_CW_5588_01
TCGA_A3_3365_01	TCGA_B0_5092_01	TCGA_BP_4163_01	TCGA_BP_5010_01	TCGA_CW_5589_01
TCGA_A3_3367_01	TCGA_B0_5094_01	TCGA_BP_4164_01	TCGA_BP_5168_01	TCGA_CW_5590_01
TCGA_A3_3370_01	TCGA_B0_5095_01	TCGA_BP_4165_01	TCGA_BP_5169_01	TCGA_CW_5591_01
TCGA_A3_3372_01	TCGA_B0_5096_01	TCGA_BP_4166_01	TCGA_BP_5170_01	TCGA_CW_6087_01
TCGA_A3_3373_01	TCGA_B0_5097_01	TCGA_BP_4167_01	TCGA_BP_5173_01	TCGA_CW_6088_01
TCGA_A3_3374_01	TCGA_B0_5098_01	TCGA_BP_4169_01	TCGA_BP_5174_01	TCGA_CW_6090_01
TCGA_A3_3376_01	TCGA_B0_5099_01	TCGA_BP_4170_01	TCGA_BP_5175_01	TCGA_CW_6093_01
TCGA_A3_3378_01	TCGA_B0_5100_01	TCGA_BP_4173_01	TCGA_BP_5176_01	TCGA_CW_6097_01

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TCGA_A3_3380_01	TCGA_B0_5102_01	TCGA_BP_4174_01	TCGA_BP_5177_01	TCGA_CZ_4853_01
TCGA_A3_3382_01	TCGA_B0_5104_01	TCGA_BP_4176_01	TCGA_BP_5178_01	TCGA_CZ_4854_01
TCGA_A3_3383_01	TCGA_B0_5106_01	TCGA_BP_4177_01	TCGA_BP_5180_01	TCGA_CZ_4856_01
TCGA_A3_3385_01	TCGA_B0_5107_01	TCGA_BP_4325_01	TCGA_BP_5181_01	TCGA_CZ_4857_01
TCGA_A3_3387_01	TCGA_B0_5108_01	TCGA_BP_4326_01	TCGA_BP_5182_01	TCGA_CZ_4858_01
TCGA_A3_A6NI_01	TCGA_B0_5109_01	TCGA_BP_4327_01	TCGA_BP_5183_01	TCGA_CZ_4859_01
TCGA_A3_A6NJ_01	TCGA_B0_5110_01	TCGA_BP_4329_01	TCGA_BP_5184_01	TCGA_CZ_4860_01
TCGA_A3_A6NL_01	TCGA_B0_5113_01	TCGA_BP_4330_01	TCGA_BP_5185_01	TCGA_CZ_4861_01
TCGA_A3_A6NN_01	TCGA_B0_5115_01	TCGA_BP_4331_01	TCGA_BP_5186_01	TCGA_CZ_4862_01
TCGA_A3_A8CQ_01	TCGA_B0_5116_01	TCGA_BP_4332_01	TCGA_BP_5187_01	TCGA_CZ_4863_01
TCGA_A3_A8OU_01	TCGA_B0_5117_01	TCGA_BP_4334_01	TCGA_BP_5189_01	TCGA_CZ_4864_01
TCGA_A3_A8OV_01	TCGA_B0_5119_01	TCGA_BP_4335_01	TCGA_BP_5190_01	TCGA_CZ_4865_01
TCGA_A3_A8OW_01	TCGA_B0_5120_01	TCGA_BP_4337_01	TCGA_BP_5191_01	TCGA_CZ_4866_01
TCGA_A3_A8OX_01	TCGA_B0_5121_01	TCGA_BP_4338_01	TCGA_BP_5192_01	TCGA_CZ_5451_01
TCGA_AK_3425_01	TCGA_B0_5399_01	TCGA_BP_4340_01	TCGA_BP_5194_01	TCGA_CZ_5452_01
TCGA_AK_3426_01	TCGA_B0_5400_01	TCGA_BP_4341_01	TCGA_BP_5195_01	TCGA_CZ_5453_01
TCGA_AK_3427_01	TCGA_B0_5402_01	TCGA_BP_4342_01	TCGA_BP_5196_01	TCGA_CZ_5454_01
TCGA_AK_3428_01	TCGA_B0_5690_01	TCGA_BP_4343_01	TCGA_BP_5198_01	TCGA_CZ_5455_01
TCGA_AK_3429_01	TCGA_B0_5691_01	TCGA_BP_4344_01	TCGA_BP_5199_01	TCGA_CZ_5456_01
TCGA_AK_3431_01	TCGA_B0_5692_01	TCGA_BP_4345_01	TCGA_BP_5200_01	TCGA_CZ_5457_01
TCGA_AK_3433_01	TCGA_B0_5693_01	TCGA_BP_4346_01	TCGA_BP_5201_01	TCGA_CZ_5458_01
TCGA_AK_3434_01	TCGA_B0_5694_01	TCGA_BP_4347_01	TCGA_BP_5202_01	TCGA_CZ_5459_01
TCGA_AK_3436_01	TCGA_B0_5695_01	TCGA_BP_4349_01	TCGA_CJ_4634_01	TCGA_CZ_5460_01
TCGA_AK_3440_01	TCGA_B0_5696_01	TCGA_BP_4351_01	TCGA_CJ_4635_01	TCGA_CZ_5461_01
TCGA_AK_3443_01	TCGA_B0_5697_01	TCGA_BP_4352_01	TCGA_CJ_4636_01	TCGA_CZ_5462_01
TCGA_AK_3444_01	TCGA_B0_5698_01	TCGA_BP_4353_01	TCGA_CJ_4637_01	TCGA_CZ_5463_01
TCGA_AK_3445_01	TCGA_B0_5699_01	TCGA_BP_4354_01	TCGA_CJ_4638_01	TCGA_CZ_5464_01
TCGA_AK_3447_01	TCGA_B0_5700_01	TCGA_BP_4355_01	TCGA_CJ_4639_01	TCGA_CZ_5465_01
TCGA_AK_3450_01	TCGA_B0_5701_01	TCGA_BP_4756_01	TCGA_CJ_4640_01	TCGA_CZ_5466_01
TCGA_AK_3451_01	TCGA_B0_5702_01	TCGA_BP_4758_01	TCGA_CJ_4641_01	TCGA_CZ_5467_01
TCGA_AK_3453_01	TCGA_B0_5703_01	TCGA_BP_4759_01	TCGA_CJ_4642_01	TCGA_CZ_5468_01
TCGA_AK_3454_01	TCGA_B0_5705_01	TCGA_BP_4760_01	TCGA_CJ_4643_01	TCGA_CZ_5469_01
TCGA_AK_3455_01	TCGA_B0_5706_01	TCGA_BP_4761_01	TCGA_CJ_4644_01	TCGA_CZ_5470_01
TCGA_AK_3456_01	TCGA_B0_5707_01	TCGA_BP_4762_01	TCGA_CJ_4868_01	TCGA_CZ_5982_01
TCGA_AK_3458_01	TCGA_B0_5709_01	TCGA_BP_4763_01	TCGA_CJ_4869_01	TCGA_CZ_5984_01
TCGA_AK_3460_01	TCGA_B0_5710_01	TCGA_BP_4765_01	TCGA_CJ_4870_01	TCGA_CZ_5985_01
TCGA_AK_3461_01	TCGA_B0_5711_01	TCGA_BP_4766_01	TCGA_CJ_4871_01	TCGA_CZ_5986_01
TCGA_AK_3465_01	TCGA_B0_5712_01	TCGA_BP_4768_01	TCGA_CJ_4872_01	TCGA_CZ_5987_01
TCGA_AS_3777_01	TCGA_B0_5713_01	TCGA_BP_4769_01	TCGA_CJ_4873_01	TCGA_CZ_5988_01
TCGA_AS_3778_01	TCGA_B0_5812_01	TCGA_BP_4770_01	TCGA_CJ_4874_01	TCGA_CZ_5989_01
TCGA_B0_4688_01	TCGA_B2_3923_01	TCGA_BP_4771_01	TCGA_CJ_4875_01	TCGA_DV_5565_01
TCGA_B0_4690_01	TCGA_B2_3924_01	TCGA_BP_4774_01	TCGA_CJ_4876_01	TCGA_DV_5566_01
TCGA_B0_4691_01	TCGA_B2_4098_01	TCGA_BP_4775_01	TCGA_CJ_4878_01	TCGA_DV_5567_01

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TCGA_B0_4693_01	TCGA_B2_4099_01	TCGA_BP_4776_01	TCGA_CJ_4881_01	TCGA_DV_5568_01
TCGA_B0_4694_01	TCGA_B2_4101_01	TCGA_BP_4777_01	TCGA_CJ_4882_01	TCGA_DV_5569_01
TCGA_B0_4696_01	TCGA_B2_4102_01	TCGA_BP_4781_01	TCGA_CJ_4884_01	TCGA_DV_5573_01
TCGA_B0_4697_01	TCGA_B2_5633_01	TCGA_BP_4782_01	TCGA_CJ_4885_01	TCGA_DV_5574_01
TCGA_B0_4698_01	TCGA_B2_5635_01	TCGA_BP_4784_01	TCGA_CJ_4886_01	TCGA_DV_5575_01
TCGA_B0_4699_01	TCGA_B2_5636_01	TCGA_BP_4787_01	TCGA_CJ_4887_01	TCGA_DV_5576_01
TCGA_B0_4700_01	TCGA_B2_5639_01	TCGA_BP_4789_01	TCGA_CJ_4888_01	TCGA_DV_A4VX_01
TCGA_B0_4701_01	TCGA_B2_5641_01	TCGA_BP_4790_01	TCGA_CJ_4889_01	TCGA_DV_A4VZ_01
TCGA_B0_4703_01	TCGA_B2_A4SR_01	TCGA_BP_4795_01	TCGA_CJ_4890_01	TCGA_DV_A4W0_01
TCGA_B0_4706_01	TCGA_B4_5377_01	TCGA_BP_4797_01	TCGA_CJ_4891_01	TCGA_EU_5904_01
TCGA_B0_4707_01	TCGA_B4_5378_01	TCGA_BP_4798_01	TCGA_CJ_4892_01	TCGA_EU_5905_01
TCGA_B0_4710_01	TCGA_B4_5832_01	TCGA_BP_4799_01	TCGA_CJ_4893_01	TCGA_EU_5906_01
TCGA_B0_4712_01	TCGA_B4_5834_01	TCGA_BP_4801_01	TCGA_CJ_4894_01	TCGA_EU_5907_01
TCGA_B0_4713_01	TCGA_B4_5835_01	TCGA_BP_4803_01	TCGA_CJ_4895_01	TCGA_G6_A5PC_01
TCGA_B0_4714_01	TCGA_B4_5836_01	TCGA_BP_4804_01	TCGA_CJ_4897_01	TCGA_G6_A8L6_01
TCGA_B0_4718_01	TCGA_B4_5838_01	TCGA_BP_4807_01	TCGA_CJ_4899_01	TCGA_G6_A8L7_01
TCGA_B0_4810_01	TCGA_B4_5843_01	TCGA_BP_4959_01	TCGA_CJ_4900_01	TCGA_G6_A8L8_01
TCGA_B0_4811_01	TCGA_B4_5844_01	TCGA_BP_4960_01	TCGA_CJ_4901_01	TCGA_GK_A6C7_01
TCGA_B0_4813_01	TCGA_B8_4143_01	TCGA_BP_4961_01	TCGA_CJ_4902_01	TCGA_MM_A563_01
TCGA_B0_4814_01	TCGA_B8_4146_01	TCGA_BP_4962_01	TCGA_CJ_4903_01	TCGA_MM_A564_01
TCGA_B0_4815_01	TCGA_B8_4148_01	TCGA_BP_4963_01	TCGA_CJ_4904_01	TCGA_MM_A84U_01
TCGA_B0_4816_01	TCGA_B8_4151_01	TCGA_BP_4964_01	TCGA_CJ_4905_01	TCGA_MW_A4EC_01
TCGA_B0_4817_01	TCGA_B8_4153_01	TCGA_BP_4965_01	TCGA_CJ_4907_01	TCGA_T7_A92I_01
TCGA_B0_4818_01	TCGA_B8_4154_01	TCGA_BP_4967_01	TCGA_CJ_4908_01	
TCGA_B0_4819_01	TCGA_B8_4619_01	TCGA_BP_4968_01	TCGA_CJ_4912_01	

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**Table S2.** List of 72 normal samples.

TCGA_A3_3358_11	TCGA_B0_5709_11	TCGA_CJ_5680_11	TCGA_CZ_4863_11	TCGA_CZ_5466_11
TCGA_A3_3387_11	TCGA_B0_5711_11	TCGA_CJ_5681_11	TCGA_CZ_4864_11	TCGA_CZ_5467_11
TCGA_B0_4700_11	TCGA_B0_5712_11	TCGA_CJ_5689_11	TCGA_CZ_4865_11	TCGA_CZ_5468_11
TCGA_B0_4712_11	TCGA_B2_5636_11	TCGA_CJ_6030_11	TCGA_CZ_5451_11	TCGA_CZ_5469_11
TCGA_B0_5402_11	TCGA_B2_5641_11	TCGA_CJ_6033_11	TCGA_CZ_5452_11	TCGA_CZ_5470_11
TCGA_B0_5690_11	TCGA_B8_4619_11	TCGA_CW_5580_11	TCGA_CZ_5453_11	TCGA_CZ_5982_11
TCGA_B0_5691_11	TCGA_B8_4620_11	TCGA_CW_5581_11	TCGA_CZ_5454_11	TCGA_CZ_5984_11
TCGA_B0_5694_11	TCGA_B8_4622_11	TCGA_CW_5584_11	TCGA_CZ_5455_11	TCGA_CZ_5985_11
TCGA_B0_5696_11	TCGA_B8_5549_11	TCGA_CW_5585_11	TCGA_CZ_5456_11	TCGA_CZ_5986_11
TCGA_B0_5697_11	TCGA_B8_5552_11	TCGA_CW_5587_11	TCGA_CZ_5457_11	TCGA_CZ_5987_11
TCGA_B0_5699_11	TCGA_CJ_5672_11	TCGA_CW_5589_11	TCGA_CZ_5458_11	TCGA_CZ_5988_11
TCGA_B0_5701_11	TCGA_CJ_5676_11	TCGA_CW_5591_11	TCGA_CZ_5461_11	TCGA_CZ_5989_11
TCGA_B0_5703_11	TCGA_CJ_5677_11	TCGA_CW_6087_11	TCGA_CZ_5462_11	
TCGA_B0_5705_11	TCGA_CJ_5678_11	TCGA_CW_6088_11	TCGA_CZ_5463_11	
TCGA_B0_5706_11	TCGA_CJ_5679_11	TCGA_CW_6090_11	TCGA_CZ_5465_11	

**Table S3.** List of 296 HEntRNAs.

<b>HEntRNA</b>	<b>log 2FC<sub>mtRNA</sub></b>	<b>log10FDR<sub>mtRNA</sub></b>	<b>log10FDR<sub>gene</sub></b>
ABAT_33905_AA	3.024196	38.29964	10.14857
ABCA2_88247_RI	2.848441	36.09568	0.062121
ABCB8_82297_RI	1.551236	39.02579	5.91575
ABCB8_82298_RI	1.803856	44.98714	5.91575
ABCD4_28379_AA	1.896292	45.41489	2.135012
ABCF3_67845_AA	2.141905	41.84423	8.99355
ABHD3_44778_AD	2.353552	85.42678	5.822957
ACAA1_64015_AT	2.615823	64.84883	9.7305
ACAA1_64019_RI	2.696236	84.7541	9.7305
ACSM2A_99285_ES	2.057707	53.06617	2.195604
AGPAT4_78370_RI	1.496707	36.72077	10.00137
AKR1A1_2695_AT	2.128289	69.75935	1.577134
AKR1B1_81848_AD	2.471052	45.18032	1.644613
ALDH1L1_66589_ES	2.08004	59.0253	7.209504
ALDH2_24538_ES	2.271407	39.61019	8.652131
ALDH3A2_39759_ES	3.238691	49.78073	8.070962
ANGEL1_28558_AP	1.308627	37.29019	5.29024
ANO8_48279_AA	1.829069	39.11718	8.903958
AP3B2_32238_AT	1.041681	47.1637	1.771349
APPL2_24127_AP	1.884248	48.43513	1.764063
ARFIP2_14135_ES	1.338411	41.47889	2.126422
ARHGAP21_11012_ES	1.875576	41.99585	1.361264
ARHGAP32_19451_RI	1.803196	69.24195	3.518725
ARPC4_63182_ES	1.469225	40.05207	0.12177
ATMIN_37749_AP	1.654411	37.28245	4.24262
ATP6V0B_2509_RI	1.803543	50.07319	4.83205
BCAT2_50813_AT	1.931115	46.62958	0.344357
BLOC1S1_22230_AP	1.710141	55.69965	4.58928
BLOC1S1_22233_RI	1.902104	47.43404	4.58928
BRF1_29605_AP	2.148036	69.92452	1.626097
BSDC1_1591_RI	1.661393	49.64427	0.928108
BTBD8_3754_AT	1.475675	57.39308	8.398894
C11orf54_18326_ES	1.643038	44.39177	6.008631
C14orf2_29526_RI	1.84195	49.83436	2.810086
C14orf79_29585_AP	1.074562	44.10106	0.399022
C16orf58_36278_RI	1.733395	43.44969	8.388519
C21orf59_60356_RI	1.601794	47.64174	0.009094
C21orf59_60361_RI	1.73421	48.03416	0.009094
C9orf156_87024_AP	1.541433	41.47017	4.780518

CABIN1_61386_AP	1.850782	45.40594	3.406388
CALCOCO1_22108_RI	2.255566	75.87747	2.974783
CARM1_47600_ES	1.686049	34.35193	0.573743
CBWD2_55055_ES	1.769887	50.09523	2.478041
CCDC24_2525_RI	1.228814	54.74916	2.287838
CCDC30_2081_AP	1.508678	58.90482	8.544673
CEP68_53779_AT	1.215185	52.37682	0.46046
CEP68_53781_AD	1.629673	38.71191	0.46046
CIRBP_46432_RI	1.613457	50.34683	2.473937
CLNK_68788_AT	1.054429	49.80375	0.492374
COG4_37401_ES	2.286571	39.83714	2.92724
COMMD4_31850_AA	2.052228	49.20222	3.240618
COMT_61101_AA	1.192999	34.58205	4.099023
CREB3L2_81912_AT	1.159181	34.48975	7.873967
CTAGE5_27374_AP	2.963367	67.65013	8.604698
D2HGDH_58422_ES	1.578844	39.22464	5.012904
DAB2_71866_AD	1.113784	37.36332	6.297864
DCAF13_84821_AT	1.761637	35.78612	6.621532
DCAF8_8441_ES	1.553507	57.22512	3.152392
DCTN1_54046_RI	1.84828	34.51915	0.888759
DDRKG1_58577_AT	2.035185	60.79492	3.891905
DDX46_73426_ES	2.417418	47.24384	5.500391
DERA_20591_AP	3.609052	76.78661	5.851893
DERA_20595_AT	1.797692	37.66826	5.851893
DGAT1_85562_RI	1.710848	50.06497	1.323892
DHRS4_26779_AT	1.658282	45.96846	5.694476
DHRS4L2_26797_AT	1.754671	34.4003	5.588037
DNAJC10_56461_AT	1.06219	55.74457	3.390777
DNAJC4_16600_ES	1.633521	37.82488	7.267472
DRG2_39548_RI	2.186314	58.47513	1.810853
DYNC2LI1_53400_AA	1.171245	69.66439	7.22675
DYNC2LI1_53403_ES	1.377139	82.95781	7.22675
DYNLT1_78277_RI	2.481773	51.88689	2.346046
DYNLT1_78278_RI	2.564187	56.01615	2.346046
DZIP3_66037_RI	2.338264	55.24462	1.836995
ECHDC2_3019_AT	1.323303	49.71189	2.31735
ECHDC2_3020_AT	1.173724	34.70424	2.31735
ECHDC2_3021_AT	1.389423	50.14053	2.31735
EFR3B_52846_AT	1.586104	50.38759	2.705658
EIF3M_14849_RI	1.644554	40.23202	9.503677
EIF4A2_68054_ES	1.923066	92.85635	2.223024
EIF4G1_67894_RI	2.189987	38.00471	1.329676
ELF5_14951_AT	4.665085	216.1325	6.422464

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ELMOD3_54246_RI	1.548391	35.83687	9.672123
ENOSF1_44459_AP	1.415844	45.98305	0.044817
ENOSF1_44474_ES	2.012967	57.68517	0.044817
EPS8_20581_AP	1.723795	37.13235	10.15937
EPS8L1_52012_ES	1.069086	35.62704	8.294275
EPS8L2_13731_RI	2.124477	58.86505	2.19906
ERAL1_40001_AD	2.254933	40.16826	7.144701
ERP29_24568_AP	1.935706	39.11438	9.993459
ESR1_78166_AT	1.606983	39.67379	6.605249
ETFA_31930_ES	1.252154	37.71081	9.294656
ETHE1_50198_AT	1.912134	47.14787	0.224923
FAM149A_71398_AP	2.394443	66.56145	0.588201
FAM162A_66433_AT	1.618287	41.46937	9.937433
FAM173A_32963_RI	1.302731	38.9244	0.46047
FAM192A_36525_AP	1.683818	42.32046	3.756398
FAM73B_87818_AD	1.428577	39.20092	7.937716
FAM73B_87819_AA	2.102819	50.33188	7.937716
FASTK_82333_RI	1.619799	48.16946	9.28281
FASTK_82334_RI	1.316193	54.03384	9.28281
FASTK_82335_RI	1.783954	50.87433	9.28281
FASTK_82336_RI	1.603566	50.4551	9.28281
FGD3_86889_AP	2.041983	42.36843	5.264461
FGD3_86895_RI	1.715842	47.47726	5.264461
FLAD1_7867_RI	2.233935	55.23726	8.308244
FOXRED1_19379_AD	2.019014	41.96437	9.504087
FUK_37385_AT	1.381686	34.78616	2.612206
GALK1_43496_RI	1.859258	35.88082	0.185806
GANAB_16377_AT	1.795294	41.05331	2.389735
GATM_30419_AT	2.839312	56.69938	7.667683
GET4_78552_AP	1.456012	51.216	0.82408
GLS2_22442_RI	2.277279	60.17693	2.383725
GPR116_76429_ES	1.540522	50.61586	3.042824
GPR56_36576_AP	-1.54515	79.06646	5.934634
GSK3A_50137_AP	1.064534	48.37607	2.177974
GSS_59053_RI	2.248318	59.51261	0.244555
GSTM4_4055_RI	1.883734	40.5669	9.549291
GSTM4_4056_RI	2.177108	42.2852	9.549291
GTF2H1_14598_AP	1.797063	52.23936	1.074371
GTF2H2C_72386_AT	1.039818	49.37504	4.572421
GTF2IRD2_80093_AT	1.23765	47.0078	2.590633
GTF2IRD2B_80104_AT	1.172909	47.02801	0.729904
GTF3C5_88005_AT	1.7615	55.52846	4.528212
HARS2_73740_AT	1.812809	47.49969	1.913949

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HARS2_73745_RI	2.198562	77.67928	1.913949
HDAC6_89011_RI	2.516172	61.00044	2.327501
HEATR6_42848_ES	1.257536	35.58506	4.547757
HECTD3_2592_RI	2.640538	48.20682	3.58684
HMBS_19098_RI	1.323033	35.20716	0.269263
HNRNPL_49699_ES	1.165252	35.00127	2.607038
HOOK2_47862_AP	2.366573	90.88839	4.263409
HOOK2_47868_AD	1.783067	89.97882	4.263409
IFT20_39879_AT	1.275909	35.13027	1.987004
IL11RA_86211_AT	1.105121	42.31895	0.861696
IL13RA1_89940_AP	1.484682	37.29096	3.597331
IL1R1_54770_AP	1.203157	38.87957	4.405379
IMPA1_84296_ES	1.799225	44.44287	0.564943
INTS3_7758_RI	2.705354	76.65733	5.798183
JTB_7776_RI	1.389664	55.34938	1.355027
KCNAB2_367_RI	2.324407	42.11941	0.588844
KIAA1407_66238_AD	1.161752	37.99501	3.423705
KIFC3_36609_AD	1.588464	42.67927	9.242216
KLC2_16990_AP	1.754799	51.5138	6.002796
KLC2_16992_RI	2.304963	61.4167	6.002796
KLHDC2_27443_RI	1.951563	50.31634	3.801067
KLHL3_73482_AT	1.851218	75.72655	9.836923
LTBP3_16861_AP	1.306495	35.84903	0.120708
MAEA_68465_AP	2.217394	66.14887	4.412247
MAGT1_89536_AT	1.178687	64.49394	3.752831
MBTD1_42521_RI	1.756278	42.12122	5.272804
METTL3_26596_RI	1.012642	37.92424	7.026274
MFSD1_67452_ES	1.666424	38.87397	1.820182
MFSD6_56566_AP	1.419307	34.5128	7.476356
MINK1_38600_ES	2.160409	35.92569	0.755534
MIOX_62834_AA	1.410267	44.22425	6.128424
MLXIP_24922_AP	1.588766	46.51724	1.327338
MON2_22832_AP	2.258642	35.98527	1.130957
MPDU1_38997_AT	1.128616	36.68091	2.233113
MRC2_42908_AP	2.666847	38.35407	0.229561
MRPL20_166_AT	1.368384	41.73893	2.045862
MRPL32_79325_AD	1.763716	47.09443	0.924661
MT1E_36479_RI	2.081652	37.61578	3.401553
MT1X_36493_AT	2.351733	39.95009	4.446597
MTCH1_75999_AT	2.259877	73.09596	6.50039
MYO19_40482_AA	1.004459	58.48487	2.095364
NAA40_16552_AA	1.461801	34.8085	7.560718
NDUFB2_82018_AP	1.174302	35.84913	7.328392



NDUFB8_12825_AT	1.870719	40.88349	1.798626
NDUFS3_15785_RI	2.208794	44.97522	8.529923
NDUFS7_46466_RI	1.332018	42.48938	0.138348
NDUFS8_17279_AD	1.263671	40.11085	3.539822
NFAT5_37288_AT	1.030911	52.52677	8.167814
NIPAL3_1109_AT	1.411645	54.79725	8.413578
NOP58_56946_ES	1.527595	45.94242	10.17813
NPEPPS_42080_AD	1.915414	65.93617	1.186741
NPEPPS_42084_ES	1.611017	55.87752	1.186741
NPRL2_65034_RI	2.528435	63.97018	3.93306
NPRL2_65037_RI	2.52884	73.40496	3.93306
NR4A1_21887_AP	1.826139	36.07856	2.713627
OSGEP_26442_AD	1.457656	39.02982	8.074937
OSGEP_26443_RI	1.674608	45.09196	8.074937
PARP2_26426_RI	1.475583	39.84413	2.543534
PARVA_14430_AT	2.20077	36.14335	6.203322
PBXIP1_7843_AT	2.138785	36.58571	5.045193
PCBP2_22046_AT	1.626906	46.85918	0.960894
PCTP_42588_AA	1.204755	37.89182	0.939734
PCYT1A_68233_AA	1.719919	38.6039	0.112209
PDPR_37331_ES	1.737009	39.64727	2.017122
PDPR_37332_AA	1.090677	35.00501	2.017122
PDZD3_100577_RI	1.244998	46.4893	0.237482
PHF12_40025_RI	1.385763	44.73	5.468385
PHF12_40026_RI	1.292906	53.12697	5.468385
PLEKHH2_53393_ES	1.192724	41.60306	1.470348
PLEKHM3_57206_AT	2.024024	34.8781	6.071314
PLSCR1_67157_AT	1.245285	35.73641	0.109843
PMPCA_88166_AT	1.96691	42.27771	3.723676
POLB_83706_AP	2.269689	43.66684	2.384992
PPIL4_78083_AP	2.005113	37.41032	8.73485
PPP2R4_87835_AP	1.576669	46.88269	5.410617
PSMA2_79317_AT	1.203918	60.5869	9.648639
PSMA7_60044_AT	1.828876	56.78339	3.876145
PSMB7_87531_AT	1.272464	36.83898	7.664151
PTK7_76245_AT	1.040428	47.68613	5.784017
RAB11B_47227_AT	1.196865	60.45356	6.039839
RABEP2_35894_ES	1.200911	43.15293	5.469229
RASA1_72717_ES	1.913051	37.21102	1.280337
RBM6_64936_RI	1.456512	43.65651	1.662491
RBM7_18823_RI	1.005994	34.30278	0.71867
RCOR3_9711_ES	1.098587	38.99151	0.380824
RFX5_7609_ES	1.517257	57.26862	1.071632

RIC8B_24156_AP	1.724389	37.4465	1.907232
RMND1_78158_AD	1.209889	53.18362	0.998501
RNF216_78674_AA	3.495888	46.24212	4.039863
RNF4_68571_AT	1.909733	45.8812	1.510495
ROGDI_33857_AD	2.607522	57.87275	5.099435
RPAP1_30095_RI	1.843081	40.89188	2.316742
RRM2B_84774_ES	1.397889	59.67963	2.260299
RSAD1_42400_AD	1.750304	35.08452	1.080659
RWDD2A_76867_RI	1.098034	35.08818	2.510196
SAT1_88697_AT	1.334909	40.32939	0.026127
SEC24C_12174_RI	1.930012	97.69473	3.259443
SERP1_67272_AT	1.609945	38.38999	2.223193
SGSM2_38395_RI	1.919237	57.75219	4.004276
SGSM3_62346_RI	1.80325	65.064	0.065758
SH3YL1_52491_AP	1.892284	35.8778	8.100098
SH3YL1_52495_AP	1.809885	77.25702	8.100098
SLC23A3_57600_AD	1.897054	40.86007	0.453574
SLC25A46_72943_AP	1.923962	42.02293	5.572627
SLC35A4_73686_AP	2.194849	36.33893	3.931704
SLC39A13_15746_RI	2.178064	39.7108	4.111019
SLC39A13_15747_RI	1.828466	54.23622	4.111019
SLC39A13_15748_RI	2.483085	52.14755	4.111019
SLC3A2_16463_AP	2.417293	77.44249	4.247983
SLC6A6_63527_AT	1.447641	37.83154	2.791388
SLC9A1_1313_AT	1.231407	41.01963	9.667517
SMARCD3_82363_RI	1.55755	62.25521	1.749625
SNAP23_30179_AA	2.711035	45.67288	1.656646
SNX13_78881_RI	1.719325	47.34655	5.043275
SNX29_34058_ES	1.236321	37.7738	4.35009
SORD_30379_AT	2.425074	57.8192	9.712734
SOX15_39009_AT	1.565721	42.65722	0.914532
SPINK1_73964_AT	2.931095	47.29951	1.853148
SRGAP1_22854_AP	1.456364	35.4124	0.963846
SRI_80359_ES	2.382843	43.87881	0.768734
SSB_55885_ES	1.153132	40.54384	2.186569
SSH3_17164_RI	1.871071	49.56862	0.029845
ST7_81554_AP	1.656989	39.72804	1.240675
STC1_83086_AP	2.816583	51.20452	2.059306
STK40_1772_RI	2.122027	44.04214	0.327306
STXBP2_47123_AP	1.354934	38.31124	10.18139
SVEP1_87186_AT	1.554393	48.09523	8.863849
TAOK3_24699_AP	2.284799	52.5523	1.566512
TARDBP_635_ES	1.423834	46.36402	1.186516

TBC1D17_51116_ES	1.931543	73.30188	0.495683
TCEA2_60189_RI	1.81782	36.89414	1.014816
TECR_47993_AP	2.720282	42.05967	1.827707
TIMM17B_89018_AA	1.215419	50.98386	0.49096
TIMP2_43923_AD	2.030922	35.67453	0.951188
TM2D1_3230_AT	1.398182	62.14637	3.518649
TMEM126B_18114_RI	1.665887	41.51325	2.724765
TMEM138_16188_RI	1.423426	42.67927	8.417306
TMEM14B_75311_AT	1.369089	39.79094	6.018907
TRAP1_33617_AP	1.573402	39.05323	8.734967
TRAPPC3_1752_ES	2.026466	37.28866	0.209641
TRIM4_80863_AT	1.236214	45.47357	1.937357
TTC38_62703_ES	1.375332	45.21327	4.103259
TUBGCP2_13530_AP	1.298718	39.45535	5.528709
TUBGCP2_13535_AA	2.737763	44.21283	5.528709
UBE2G2_60831_ES	2.20977	61.24254	0.161965
UBE2N_23689_RI	1.805154	37.68085	4.145737
UBE3B_24310_ES	2.563909	35.54806	8.08291
UBR4_883_RI	3.029953	35.72437	4.718675
UBXN4_55449_RI	2.015936	34.78827	1.028204
UQCR11_46529_AT	2.055202	37.94205	0.292275
USP40_58045_AP	2.53322	44.10991	1.075956
USP48_994_AP	1.188987	45.80544	3.646375
VAC14_37411_AP	1.865808	34.73692	0.601084
VGLL3_65659_AT	2.691891	48.1648	4.284287
VPS28_85601_RI	1.548317	43.83286	7.491276
VPS28_85602_RI	2.33547	55.64056	7.491276
VPS28_85604_RI	2.418835	57.95977	7.491276
VPS28_85611_RI	1.843844	46.02359	7.491276
VPS8_67976_RI	2.180572	57.50545	0.226443
VRK3_51142_AT	1.69176	56.67209	0.016403
WAC_11103_ES	1.880047	43.31168	0.045828
WBSCR22_80000_AT	1.700616	46.24492	0.341137
XBP1_61561_AP	1.428561	37.70344	3.023477
ZNF20_47777_AT	1.164256	44.60443	8.606455
ZNF24_45164_AA	1.394423	35.80339	5.923833
ZNF317_47268_AA	2.019902	35.93944	3.053495
ZNF638_53926_AP	2.032338	37.31461	0.135991
ZNF675_48823_AT	1.635358	62.73052	1.486068
ZNF76_75899_RI	1.910763	56.45873	3.470216
ZNF76_75900_RI	2.351879	61.58282	3.470216
ZNRF1_37577_AT	1.600073	43.58074	10.18139



**Table S4.** ntRNA-miRNA interaction pairs from Targetscan database.

ntRNA	miRNA
PPIL4_78083_AP(ENST00000340881)	hsa-miR-499a-5p
PPIL4_78083_AP(ENST00000340881)	hsa-miR-499a-5p
BSDC1_1591_RI(ENST00000341071)	hsa-miR-25-3p
GSTM4_4056_RI(ENST00000369833)	hsa-miR-378a-3p
GSTM4_4056_RI(ENST00000369833)	hsa-miR-378h
HECTD3_2592_RI(ENST00000372168)	hsa-miR-26b-5p
KLC2_16990_AP(ENST00000394065)	hsa-miR-34a-5p
KLC2_16992_RI(ENST00000394065)	hsa-miR-34a-5p
KLC2_16990_AP(ENST00000394065)	hsa-miR-143-3p
KLC2_16992_RI(ENST00000394065)	hsa-miR-143-3p
KLC2_16990_AP(ENST00000394065)	hsa-miR-148a-3p
KLC2_16990_AP(ENST00000394065)	hsa-miR-148b-3p
KLC2_16992_RI(ENST00000394065)	hsa-miR-148a-3p
KLC2_16992_RI(ENST00000394065)	hsa-miR-148b-3p
KLC2_16990_AP(ENST00000394065)	hsa-miR-125b-5p
KLC2_16992_RI(ENST00000394065)	hsa-miR-125b-5p
SNX13_78881_RI(ENST00000409389)	hsa-miR-25-3p
SLC39A13_15746_RI(ENST00000524928)	hsa-miR-125b-5p
SLC39A13_15747_RI(ENST00000524928)	hsa-miR-125b-5p
SLC39A13_15746_RI(ENST00000524928)	hsa-miR-27b-3p
SLC39A13_15747_RI(ENST00000524928)	hsa-miR-27b-3p
PARP2_26426_RI(ENST00000527915)	hsa-miR-140-3p.2
TMEM126B_18114_RI(ENST00000534341)	hsa-miR-34a-5p
RBM7_18823_RI(ENST00000541475)	hsa-miR-186-5p
RBM7_18823_RI(ENST00000541475)	hsa-miR-125b-5p
RBM7_18823_RI(ENST00000541475)	hsa-miR-143-3p

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CALCOCO1_22108_RI(ENST00000548263)	hsa-miR-374b-5p
UBE2N_23689_RI(ENST00000550657)	hsa-miR-27b-3p
UBE2N_23689_RI(ENST00000550657)	hsa-miR-221-3p
UBE2N_23689_RI(ENST00000550657)	hsa-miR-499a-5p
ABAT_33905_AA(ENST00000569156)	hsa-miR-125b-5p
ABAT_33905_AA(ENST00000569156)	hsa-miR-27b-3p
ABAT_33905_AA(ENST00000569156)	hsa-miR-421
ABAT_33905_AA(ENST00000569156)	hsa-miR-499a-5p
ABAT_33905_AA(ENST00000569156)	hsa-miR-374b-5p
PCTP_42588_AA(ENST00000569156)	hsa-miR-125b-5p
PCTP_42588_AA(ENST00000569156)	hsa-miR-421
PHF12_40026_RI(ENST00000577226)	hsa-miR-140-3p.2
PHF12_40025_RI(ENST00000577226)	hsa-miR-140-3p.2
PHF12_40026_RI(ENST00000577226)	hsa-miR-221-3p
PHF12_40025_RI(ENST00000577226)	hsa-miR-221-3p
ZNF24_45164_AA(ENST00000592278)	hsa-miR-499a-5p
ZNF24_45164_AA(ENST00000592278)	hsa-miR-140-3p.2
ZNF24_45164_AA(ENST00000592278)	hsa-miR-199a-5p

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**Table S5.** miRNA-lncRNA interaction pairs from LncBase2 database.

miRNA	lncRNA	miRNA	lncRNA	miRNA	lncRNA
hsa-miR-27b-3p	RP11-368I23.2	hsa-miR-140-3p	LINC00645	hsa-miR-378a-3p	ANKRD10-IT1
hsa-miR-143-3p	LINC00705	hsa-miR-199a-5p	LINC00645	hsa-miR-221-3p	RP4-568C11.4
hsa-miR-27b-3p	LINC00705	hsa-miR-186-5p	RP11-8P13.5	hsa-miR-26b-5p	RP4-568C11.4
hsa-miR-186-5p	COLCA1	hsa-miR-26b-5p	RP11-8P13.5	hsa-miR-499a-5p	RP4-568C11.4
hsa-miR-378a-3p	COLCA1	hsa-miR-26b-5p	CTC-492K19.4	hsa-miR-148a-3p	RP4-568C11.4
hsa-miR-378h	CTD-3099C6.5	hsa-miR-34a-5p	RP3-522J7.6	hsa-miR-148b-3p	RP4-568C11.4
hsa-miR-378a-3p	CTD-3099C6.5	hsa-miR-186-5p	CTD-2349P21.11	hsa-miR-378a-3p	RP4-568C11.4
hsa-miR-146b-5p	RP11-63P12.7	hsa-miR-140-3p	CTD-2012J19.3	hsa-miR-199a-5p	CHRM3-AS2
hsa-miR-374b-5p	RP5-940J5.8	hsa-miR-26b-5p	CTD-3051D23.1	hsa-miR-186-5p	CHRM3-AS2
hsa-miR-143-3p	AP001610.5	hsa-miR-143-3p	CTD-3051D23.1	hsa-miR-374b-5p	CHRM3-AS2
hsa-miR-186-5p	CTD-2192J16.21	hsa-miR-34a-5p	AC097713.4	hsa-miR-34a-5p	RP11-328N19.1
hsa-miR-499a-5p	AC003090.1	hsa-miR-146b-5p	AC104699.1	hsa-miR-148b-3p	RP11-118K6.3
hsa-miR-125b-5p	AC003090.1	hsa-miR-27b-3p	RP11-286B14.1	hsa-miR-378h	RP11-37B2.1
hsa-miR-125b-5p	AC008079.10	hsa-miR-221-3p	RP11-286B14.1	hsa-miR-378a-3p	RP11-37B2.1
hsa-miR-199a-5p	AC008079.10	hsa-miR-27b-3p	RP11-383I23.2	hsa-miR-374b-5p	RP11-37B2.1
hsa-miR-34a-5p	AC008079.10	hsa-miR-140-3p	RP11-706O15.7	hsa-miR-140-3p	RP11-37B2.1
hsa-miR-143-3p	AC008079.10	hsa-miR-26b-5p	RP11-706O15.7	hsa-miR-186-5p	RP11-37B2.1
hsa-miR-143-3p	AC093326.1	hsa-miR-143-3p	RP11-706O15.7	hsa-miR-374b-5p	LINC01320
hsa-miR-148a-3p	RP11-539L10.2	hsa-miR-34a-5p	MIR99AHG	hsa-miR-221-3p	LINC01320
hsa-miR-148b-3p	RP11-539L10.2	hsa-miR-148a-3p	RP11-146E13.4	hsa-miR-378h	RP11-342D11.2
hsa-miR-143-3p	RP4-794I6.4	hsa-miR-146b-5p	RP11-554D20.2	hsa-miR-378a-3p	RP11-342D11.2
hsa-miR-199a-5p	RP4-794I6.4	hsa-miR-421	LINC01030	hsa-miR-34a-5p	RP11-61I13.3
hsa-miR-34a-5p	RBMS3-AS1	hsa-miR-26b-5p	AC007750.5	hsa-miR-125b-5p	RP11-61I13.3
hsa-miR-499a-5p	P4HA2-AS1	hsa-miR-140-3p	AC007750.5	hsa-miR-143-3p	RP11-156L14.1
hsa-miR-27b-3p	KC6	hsa-miR-27b-3p	CTA-228A9.4	hsa-miR-27b-3p	RP11-156L14.1
hsa-miR-34a-5p	RP11-264B14.2	hsa-miR-148a-3p	CTA-228A9.4	hsa-miR-148a-3p	RP11-156L14.1

hsa-miR-25-3p	LINC01322	hsa-miR-143-3p	CTA-228A9.4	hsa-miR-186-5p	RP11-156L14.1
hsa-miR-186-5p	RP4-740C4.7	hsa-miR-148b-3p	CTA-228A9.4	hsa-miR-125b-5p	RP11-156L14.1
hsa-miR-34a-5p	MYCNOS	hsa-miR-26b-5p	AC000068.5	hsa-miR-143-3p	LINC00882
hsa-miR-186-5p	RP13-514E23.1	hsa-miR-26b-5p	RP11-310E22.5	hsa-miR-146b-5p	RP11-1151B14.2
hsa-miR-34a-5p	AC006960.7	hsa-miR-25-3p	RP11-900F13.2	hsa-miR-378a-3p	RP11-1151B14.2
hsa-miR-125b-5p	RP11-700H6.1	hsa-miR-146b-5p	RP4-539M6.20	hsa-miR-378h	RP11-1151B14.2
hsa-miR-34a-5p	AC016722.4	hsa-miR-199a-5p	RP11-324I22.2	hsa-miR-25-3p	RP11-1B20.1
hsa-miR-148a-3p	AC016722.4	hsa-miR-125b-5p	RP11-686D22.5	hsa-miR-148b-3p	RP11-624C23.1
hsa-miR-421	AC016722.4	hsa-miR-499a-5p	EXTL3-AS1	hsa-miR-148a-3p	RP11-624C23.1
hsa-miR-148b-3p	AC016722.4	hsa-miR-143-3p	EXTL3-AS1	hsa-miR-186-5p	RP11-382J12.1
hsa-miR-148b-3p	RP11-540K16.1	hsa-miR-186-5p	RP11-707A18.1	hsa-miR-374b-5p	RP11-382J12.1
hsa-miR-27b-3p	RRS1-AS1	hsa-miR-374b-5p	RP11-707A18.1	hsa-miR-186-5p	RP11-133F8.2
hsa-miR-499a-5p	RP4-681N20.5	hsa-miR-27b-3p	RP11-707A18.1	hsa-miR-143-3p	RP11-133F8.2
hsa-miR-143-3p	SACS-AS1	hsa-miR-143-3p	RP1-102G20.5	hsa-miR-374b-5p	RP11-196G18.3
hsa-miR-34a-5p	RP13-126P21.2	hsa-miR-140-3p	CTD-2529P6.3	hsa-miR-143-3p	ATP11A-AS1
hsa-miR-186-5p	RP11-117D22.2	hsa-miR-186-5p	AC002519.8	hsa-miR-143-3p	RP11-356B19.11
hsa-miR-34a-5p	IQCH-AS1	hsa-miR-26b-5p	AC002519.8	hsa-miR-143-3p	AC091814.3
hsa-miR-140-3p	IQCH-AS1	hsa-miR-421	AC002519.8	hsa-miR-186-5p	AC107079.1
hsa-miR-146b-5p	RP11-319G9.3	hsa-miR-27b-3p	RP11-196G18.22	hsa-miR-146b-5p	RP11-473O4.5
hsa-miR-186-5p	RP11-319G9.3	hsa-miR-27b-3p	RP11-324D17.3	hsa-miR-25-3p	RP5-965G21.4
hsa-miR-143-3p	RP6-159A1.4	hsa-miR-186-5p	RP11-399E6.1	hsa-miR-148b-3p	RP5-965G21.4
hsa-miR-148b-3p	RP6-159A1.4	hsa-miR-146b-5p	RP11-507K2.2	hsa-miR-148a-3p	RP5-965G21.4
hsa-miR-148a-3p	RP6-159A1.4	hsa-miR-125b-5p	NCAM1-AS1	hsa-miR-143-3p	RP5-965G21.4
hsa-miR-125b-5p	RP6-159A1.4	hsa-miR-25-3p	NCAM1-AS1	hsa-miR-221-3p	AC007879.7
hsa-miR-186-5p	RP6-159A1.4	hsa-miR-421	LRP4-AS1	hsa-miR-199a-5p	AP000265.1
hsa-miR-186-5p	LINC01208	hsa-miR-378h	LRP4-AS1	hsa-miR-499a-5p	RP11-526A4.1
hsa-miR-27b-3p	RP11-521D12.5	hsa-miR-378a-3p	LRP4-AS1	hsa-miR-146b-5p	ZBED5-AS1
hsa-miR-26b-5p	FAM95B1	hsa-miR-34a-5p	LRP4-AS1	hsa-miR-125b-5p	RP11-421E14.2



hsa-miR-143-3p	FAM95B1	hsa-miR-499a-5p	RP11-105N14.1	hsa-miR-221-3p	RP11-6O2.4
hsa-miR-26b-5p	AC000036.4	hsa-miR-34a-5p	RP11-192P3.4	hsa-miR-26b-5p	RP11-330M19.1
hsa-miR-143-3p	AC000036.4	hsa-miR-140-3p	AP000355.2	hsa-miR-221-3p	RP11-544A12.8
hsa-miR-27b-3p	AC058791.1	hsa-miR-146b-5p	CTD-2015G9.2	hsa-miR-148b-3p	AC004901.1
hsa-miR-34a-5p	TOLLIP-AS1	hsa-miR-186-5p	RP1-149A16.19	hsa-miR-148a-3p	AC004901.1
hsa-miR-143-3p	CTB-193M12.3	hsa-miR-421	CTD-2058B24.2	hsa-miR-199a-5p	RP4-683M8.2
hsa-miR-499a-5p	CTD-2026J24.1	hsa-miR-374b-5p	RP11-79M19.2	hsa-miR-186-5p	RP5-1057J7.7
hsa-miR-34a-5p	RP11-231I16.1	hsa-miR-186-5p	RP11-79M19.2	hsa-miR-146b-5p	RP5-1056H1.2
hsa-miR-27b-3p	RP11-231I16.1	hsa-miR-140-3p	LINC01561	hsa-miR-199a-5p	RP5-1056H1.2
hsa-miR-499a-5p	RP11-254F7.3	hsa-miR-27b-3p	LINC01561	hsa-miR-186-5p	CTC-327F10.4
hsa-miR-125b-5p	TRPM2-AS	hsa-miR-125b-5p	LINC00987	hsa-miR-34a-5p	AF131215.3
hsa-miR-34a-5p	TRPM2-AS	hsa-miR-143-3p	CYP4F35P	hsa-miR-26b-5p	AF131215.3
hsa-miR-27b-3p	L3MBTL4-AS1	hsa-miR-186-5p	RP11-575L7.4	hsa-miR-34a-5p	AC068282.3
hsa-miR-374b-5p	CTD-2260A17.1	hsa-miR-34a-5p	RP11-575L7.4	hsa-miR-140-3p	RP11-115D19.1
hsa-miR-27b-3p	RP11-677I18.3	hsa-miR-146b-5p	RP5-1042K10.10	hsa-miR-125b-5p	RP11-115D19.1
hsa-miR-125b-5p	RP11-420A23.1	hsa-miR-186-5p	RP3-467L1.6	hsa-miR-34a-5p	EAF1-AS1
hsa-miR-378a-3p	LINC00626	hsa-miR-186-5p	RP11-342K6.4	hsa-miR-499a-5p	EAF1-AS1
hsa-miR-378h	LINC00626	hsa-miR-34a-5p	RP11-114M1.1	hsa-miR-26b-5p	EAF1-AS1
hsa-miR-27b-3p	RP11-166P13.3	hsa-miR-140-3p	RP11-114M1.1	hsa-miR-143-3p	CTD-2199O4.1
hsa-miR-26b-5p	LINC01020	hsa-miR-34a-5p	RP11-206M11.7	hsa-miR-27b-3p	RP11-283I3.1
hsa-miR-186-5p	CTC-484P3.3	hsa-miR-27b-3p	CTD-2349P21.5	hsa-miR-146b-5p	RP11-255H23.4
hsa-miR-143-3p	CTC-484P3.3	hsa-miR-148b-3p	RP11-394I13.1	hsa-miR-186-5p	CTD-2095E4.5
hsa-miR-421	CTC-484P3.3	hsa-miR-148a-3p	RP11-394I13.1	hsa-miR-374b-5p	MIR503HG
hsa-miR-221-3p	RP4-564F22.7	hsa-miR-125b-5p	RP11-59C5.3	hsa-miR-27b-3p	CTD-2270F17.1
hsa-miR-125b-5p	MLIP-AS1	hsa-miR-27b-3p	IGF2BP2-AS1	hsa-miR-26b-5p	RP11-147L13.13
hsa-miR-499a-5p	MLIP-AS1	hsa-miR-186-5p	CTD-2521M24.6	hsa-miR-143-3p	RP11-276E17.2
hsa-miR-221-3p	MLIP-AS1	hsa-miR-378h	PLA2G4E-AS1	hsa-miR-148b-3p	AC003991.3
hsa-miR-148b-3p	RP11-3D4.3	hsa-miR-378a-3p	PLA2G4E-AS1	hsa-miR-148a-3p	AC003991.3

hsa-miR-148a-3p	RP11-3D4.3	hsa-miR-499a-5p	PLA2G4E-AS1	hsa-miR-27b-3p	AC007036.6
hsa-miR-186-5p	IFNG-AS1	hsa-miR-27b-3p	CTD-3037G24.3	hsa-miR-421	PCAT29
hsa-miR-143-3p	AC091814.2	hsa-miR-374b-5p	LINC01393	hsa-miR-378a-3p	LINC01138
hsa-miR-146b-5p	LINC00607	hsa-miR-186-5p	LINC01393	hsa-miR-378h	LINC01138
hsa-miR-421	LINC00487	hsa-miR-27b-3p	RP11-760H22.2	hsa-miR-34a-5p	LINC01138
hsa-miR-186-5p	LINC00487	hsa-miR-421	NUCB1-AS1	hsa-miR-199a-5p	LINC01138
hsa-miR-374b-5p	RP11-276H19.1	hsa-miR-146b-5p	RP11-120K24.3	hsa-miR-421	CPEB2-AS1
hsa-miR-27b-3p	RP11-276H19.1	hsa-miR-26b-5p	LINC00837	hsa-miR-221-3p	CPEB2-AS1
hsa-miR-186-5p	RP11-276H19.1	hsa-miR-125b-5p	LINC00837	hsa-miR-27b-3p	CPEB2-AS1
hsa-miR-221-3p	RP11-234G16.5	hsa-miR-125b-5p	AC004988.1	hsa-miR-374b-5p	CPEB2-AS1
hsa-miR-148a-3p	RP4-644L1.2	hsa-miR-25-3p	RP11-861L17.3	hsa-miR-125b-5p	RP11-501J20.5
hsa-miR-148b-3p	RP4-644L1.2	hsa-miR-499a-5p	RP11-861L17.3	hsa-miR-148a-3p	RP4-684O24.5
hsa-miR-125b-5p	RP4-644L1.2	hsa-miR-374b-5p	RP11-471M2.3	hsa-miR-26b-5p	RP11-136K14.3
hsa-miR-26b-5p	RP4-644L1.2	hsa-miR-499a-5p	RP11-471M2.3	hsa-miR-374b-5p	LINC00473
hsa-miR-374b-5p	DLEU2L	hsa-miR-143-3p	RP5-881L22.5	hsa-miR-146b-5p	AC007278.2
hsa-miR-27b-3p	DLEU2L	hsa-miR-186-5p	RP11-713C5.1	hsa-miR-146b-5p	RP11-479J7.2
hsa-miR-125b-5p	RP11-184M15.1	hsa-miR-374b-5p	RP11-713C5.1	hsa-miR-125b-5p	RP11-181E10.3
hsa-miR-27b-3p	RP11-184M15.1	hsa-miR-140-3p	RP11-47J17.2	hsa-miR-26b-5p	RP11-181E10.3
hsa-miR-125b-5p	RP11-348N5.9	hsa-miR-499a-5p	RNF219-AS1	hsa-miR-499a-5p	TNKS2-AS1
hsa-miR-25-3p	RP11-348N5.9	hsa-miR-186-5p	RNF219-AS1	hsa-miR-34a-5p	RP11-50D9.3
hsa-miR-186-5p	RP11-348N5.9	hsa-miR-27b-3p	RNF219-AS1	hsa-miR-499a-5p	RP11-50D9.3
hsa-miR-378a-3p	LINC01556	hsa-miR-25-3p	RNF219-AS1	hsa-miR-374b-5p	RP11-50D9.3
hsa-miR-378h	LINC01556	hsa-miR-374b-5p	RNF219-AS1	hsa-miR-378h	RP11-346C20.3
hsa-miR-186-5p	AC009120.11	hsa-miR-199a-5p	RNF219-AS1	hsa-miR-378a-3p	RP11-346C20.3
hsa-miR-125b-5p	RP11-401P9.4	hsa-miR-26b-5p	RNF219-AS1	hsa-miR-146b-5p	AP000688.29
hsa-miR-186-5p	RP11-506O24.2	hsa-miR-374b-5p	RP13-143G15.4	hsa-miR-378h	AP000688.29
hsa-miR-27b-3p	CTD-2376I20.1	hsa-miR-148a-3p	CTD-2024I7.18	hsa-miR-378a-3p	AP000688.29
hsa-miR-27b-3p	CTC-429L19.3	hsa-miR-148b-3p	CTD-2024I7.18	hsa-miR-221-3p	AP000688.29

hsa-miR-125b-5p	PRMT5-AS1	hsa-miR-221-3p	MIAT	hsa-miR-140-3p	AP000688.29
hsa-miR-140-3p	PRMT5-AS1	hsa-miR-27b-3p	MIAT	hsa-miR-186-5p	CLRN1-AS1
hsa-miR-221-3p	PRMT5-AS1	hsa-miR-125b-5p	MIAT	hsa-miR-27b-3p	CLRN1-AS1
hsa-miR-199a-5p	RP11-131L23.1	hsa-miR-378h	MIAT	hsa-miR-378h	RP11-168O16.1
hsa-miR-186-5p	RP11-131L23.1	hsa-miR-378a-3p	MIAT	hsa-miR-378a-3p	RP11-168O16.1
hsa-miR-140-3p	RP11-2E11.5	hsa-miR-143-3p	RP11-219G17.4	hsa-miR-186-5p	RP11-6O2.2
hsa-miR-186-5p	RP11-2E11.5	hsa-miR-146b-5p	RP11-831F12.2	hsa-miR-140-3p	RP11-6O2.2
hsa-miR-146b-5p	RP11-2E11.5	hsa-miR-186-5p	RP11-382A20.6	hsa-miR-143-3p	MED4-AS1
hsa-miR-378a-3p	RP11-659P15.1	hsa-miR-186-5p	LINC01018	hsa-miR-34a-5p	MED4-AS1
hsa-miR-186-5p	RP11-659P15.1	hsa-miR-34a-5p	FENDRR	hsa-miR-34a-5p	LINC01272
hsa-miR-378h	RP11-659P15.1	hsa-miR-186-5p	FENDRR	hsa-miR-143-3p	LINC01272
hsa-miR-499a-5p	RP11-317G6.1	hsa-miR-25-3p	RP11-346C20.4	hsa-miR-25-3p	RP11-767I20.1
hsa-miR-143-3p	PIK3IP1-AS1	hsa-miR-186-5p	RP13-631K18.3	hsa-miR-140-3p	RP11-767I20.1
hsa-miR-25-3p	RP11-834C11.6	hsa-miR-148a-3p	AC005740.6	hsa-miR-143-3p	RP11-192H23.7
hsa-miR-26b-5p	RP11-521O16.2	hsa-miR-148b-3p	AC005740.6	hsa-miR-146b-5p	RP11-192H23.7
hsa-miR-27b-3p	RP11-521O16.2	hsa-miR-27b-3p	AC005740.6	hsa-miR-27b-3p	LINC01266
hsa-miR-25-3p	RP11-521O16.2	hsa-miR-199a-5p	RP11-367G6.3	hsa-miR-186-5p	LINC01266
hsa-miR-125b-5p	RP11-597D13.9	hsa-miR-34a-5p	RP3-431P23.5	hsa-miR-148b-3p	LINC01266
hsa-miR-374b-5p	RP11-597D13.9	hsa-miR-125b-5p	LINC01311	hsa-miR-27b-3p	RP11-332J15.4
hsa-miR-146b-5p	LINC01559	hsa-miR-27b-3p	LINC01311	hsa-miR-140-3p	RP11-332J15.4
hsa-miR-26b-5p	LINC01559	hsa-miR-499a-5p	RP11-159D12.2	hsa-miR-221-3p	CTD-2510F5.4
hsa-miR-27b-3p	AC010729.2	hsa-miR-199a-5p	RP11-159D12.2	hsa-miR-186-5p	RP1-142L7.9
hsa-miR-125b-5p	CELF2-AS1	hsa-miR-143-3p	LINC00152	hsa-miR-421	RP11-10C24.3
hsa-miR-34a-5p	AC093382.1	hsa-miR-27b-3p	RP11-492E3.2	hsa-miR-186-5p	RP11-116O18.1
hsa-miR-186-5p	RP11-268G12.3	hsa-miR-26b-5p	RP11-492E3.2	hsa-miR-146b-5p	RP11-116O18.1
hsa-miR-125b-5p	RP11-268G12.3	hsa-miR-140-3p	RP4-646N3.1	hsa-miR-146b-5p	CTD-2583A14.8
hsa-miR-27b-3p	TSPEAR-AS2	hsa-miR-221-3p	RP4-646N3.1	hsa-miR-186-5p	RP11-583F2.2
hsa-miR-148a-3p	TSPEAR-AS2	hsa-miR-143-3p	RP11-338I21.1	hsa-miR-140-3p	RP11-583F2.2

hsa-miR-199a-5p	RP1-154K9.2	hsa-miR-143-3p	RP11-2L8.1	hsa-miR-374b-5p	RP11-583F2.2
hsa-miR-26b-5p	RP1-154K9.2	hsa-miR-143-3p	RP1-224A6.9	hsa-miR-148a-3p	LINC01265
hsa-miR-34a-5p	RP11-408A13.3	hsa-miR-186-5p	RP11-305K5.1	hsa-miR-499a-5p	LINC00908
hsa-miR-378h	RP11-443B7.1	hsa-miR-374b-5p	RP11-902B17.1	hsa-miR-221-3p	LINC00908
hsa-miR-378a-3p	RP11-443B7.1	hsa-miR-34a-5p	GAS8-AS1	hsa-miR-146b-5p	RP11-325K4.3
hsa-miR-27b-3p	RP11-443B7.1	hsa-miR-125b-5p	RP11-314M24.1	hsa-miR-499a-5p	SNHG3
hsa-miR-221-3p	RP11-624D11.2	hsa-miR-186-5p	RP11-314M24.1	hsa-miR-146b-5p	SNHG3
hsa-miR-199a-5p	CTC-367F4.1	hsa-miR-421	RP3-508I15.20	hsa-miR-421	RP11-286H15.1
hsa-miR-199a-5p	RP11-54O7.18	hsa-miR-125b-5p	RP11-672A2.1	hsa-miR-125b-5p	AC018742.1
hsa-miR-25-3p	AC098617.1	hsa-miR-148a-3p	CTD-2555A7.3	hsa-miR-143-3p	RP11-1084E5.1
hsa-miR-125b-5p	AC098617.1	hsa-miR-148b-3p	CTD-2555A7.3	hsa-miR-421	RP11-400N13.3
hsa-miR-26b-5p	RP13-494C23.1	hsa-miR-26b-5p	RP11-391H12.8	hsa-miR-140-3p	RP11-389G6.3
hsa-miR-378a-3p	RP4-625H18.2	hsa-miR-125b-5p	RP11-95O2.1	hsa-miR-148a-3p	RP1-102E24.8
hsa-miR-378h	RP4-625H18.2	hsa-miR-499a-5p	RP11-861E21.2	hsa-miR-34a-5p	ETV5-AS1
hsa-miR-27b-3p	CASC11	hsa-miR-27b-3p	RP11-861E21.2	hsa-miR-34a-5p	RP11-443B7.3
hsa-miR-143-3p	CASC11	hsa-miR-186-5p	MGC15885	hsa-miR-186-5p	RP11-443B7.3
hsa-miR-125b-5p	KCNQ1OT1	hsa-miR-34a-5p	MGC15885	hsa-miR-421	KB-68A7.1
hsa-miR-27b-3p	KCNQ1OT1	hsa-miR-143-3p	RP11-820I16.1	hsa-miR-143-3p	RP11-348J24.2
hsa-miR-143-3p	KCNQ1OT1	hsa-miR-125b-5p	FTO-IT1	hsa-miR-378a-3p	HS1BP3-IT1
hsa-miR-34a-5p	KCNQ1OT1	hsa-miR-125b-5p	HOXB-AS3	hsa-miR-378h	HS1BP3-IT1
hsa-miR-26b-5p	KCNQ1OT1	hsa-miR-378a-3p	HOXB-AS3	hsa-miR-148b-3p	CTD-2171N6.1
hsa-miR-374b-5p	KCNQ1OT1	hsa-miR-378h	HOXB-AS3	hsa-miR-148a-3p	CTD-2171N6.1
hsa-miR-140-3p	KCNQ1OT1	hsa-miR-186-5p	RP11-19E18.2	hsa-miR-186-5p	RP11-290F5.1
hsa-miR-199a-5p	KCNQ1OT1	hsa-miR-27b-3p	FAM215B	hsa-miR-143-3p	RP11-290F5.1
hsa-miR-146b-5p	KCNQ1OT1	hsa-miR-27b-3p	RP11-673E1.1	hsa-miR-199a-5p	RP11-423G4.10
hsa-miR-378h	KCNQ1OT1	hsa-miR-421	RP11-673E1.1	hsa-miR-221-3p	RP11-423G4.10
hsa-miR-148a-3p	KCNQ1OT1	hsa-miR-26b-5p	RP11-673E1.1	hsa-miR-378h	RP11-314O13.1
hsa-miR-378a-3p	KCNQ1OT1	hsa-miR-140-3p	RP11-673E1.1	hsa-miR-378a-3p	RP11-314O13.1

hsa-miR-421	KCNQ1OT1	hsa-miR-378a-3p	RP11-673E1.1	hsa-miR-125b-5p	RP11-314O13.1
hsa-miR-148b-3p	KCNQ1OT1	hsa-miR-125b-5p	RP11-673E1.1	hsa-miR-125b-5p	RP11-455F5.6
hsa-miR-25-3p	KCNQ1OT1	hsa-miR-374b-5p	RP11-673E1.1	hsa-miR-421	RP11-455F5.6
			chr22-		
hsa-miR-499a-5p	KCNQ1OT1	hsa-miR-186-5p	38_28785274-29006793.1	hsa-miR-140-3p	RP3-340N1.2
			chr22-		
hsa-miR-186-5p	KCNQ1OT1	hsa-miR-143-3p	38_28785274-29006793.1	hsa-miR-34a-5p	RP3-340N1.2
			chr22-		
hsa-miR-221-3p	KCNQ1OT1	hsa-miR-146b-5p	38_28785274-29006793.1	hsa-miR-143-3p	RP3-340N1.2
			chr22-		
hsa-miR-499a-5p	LINC00426	hsa-miR-27b-3p	38_28785274-29006793.1	hsa-miR-186-5p	AC007326.10
			chr22-		
hsa-miR-199a-5p	LINC00426	hsa-miR-140-3p	38_28785274-29006793.1	hsa-miR-148a-3p	AC007326.10
			chr22-		
hsa-miR-27b-3p	LINC00426	hsa-miR-125b-5p	38_28785274-29006793.1	hsa-miR-148b-3p	AC007326.10
			chr22-		
hsa-miR-143-3p	CASC2	hsa-miR-26b-5p	38_28785274-29006793.1	hsa-miR-27b-3p	AC007326.10
			chr22-		
hsa-miR-499a-5p	CASC2	hsa-miR-374b-5p	38_28785274-29006793.1	hsa-miR-27b-3p	RP11-473O4.4

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hsa-miR-186-5p	CASC2	hsa-miR-34a-5p	38_28785274-29006793.1	hsa-miR-125b-5p	RP11-473O4.4
chr22-					
hsa-miR-125b-5p	CASC2	hsa-miR-499a-5p	38_28785274-29006793.1	hsa-miR-125b-5p	RP11-284F21.9
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hsa-miR-199a-5p	AC007161.5	hsa-miR-148a-3p	38_28785274-29006793.1	hsa-miR-378h	RP11-807H22.7
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hsa-miR-186-5p	RP1-5O6.6	hsa-miR-378h	38_28785274-29006793.1	hsa-miR-378a-3p	RP11-807H22.7
chr22-					
hsa-miR-148a-3p	RP11-256L6.2	hsa-miR-148b-3p	38_28785274-29006793.1	hsa-miR-421	LINC00664
chr22-					
hsa-miR-374b-5p	RP11-438L19.1	hsa-miR-378a-3p	38_28785274-29006793.1	hsa-miR-199a-5p	LINC00664
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hsa-miR-146b-5p	RP11-254I22.1	hsa-miR-199a-5p	38_28785274-29006793.1	hsa-miR-125b-5p	LINC00664
chr22-					
hsa-miR-186-5p	RP11-272L14.2	hsa-miR-421	38_28785274-29006793.1	hsa-miR-27b-3p	LINC00664
chr22-					
hsa-miR-27b-3p	AC012506.4	hsa-miR-25-3p	38_28785274-29006793.1	hsa-miR-26b-5p	RP11-427L15.2

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hsa-miR-186-5p	RP11-45M22.5	hsa-miR-221-3p	38_28785274-29006793.1	hsa-miR-125b-5p	RP11-111I12.1
hsa-miR-27b-3p	RP11-462L8.1	hsa-miR-148b-3p	RP11-231N3.1	hsa-miR-499a-5p	AC097467.2
hsa-miR-499a-5p	RP11-462L8.1	hsa-miR-148a-3p	RP11-231N3.1	hsa-miR-27b-3p	AC097467.2
hsa-miR-143-3p	DGCR9	hsa-miR-374b-5p	LINC01362	hsa-miR-378h	AC097467.2
hsa-miR-199a-5p	ROR1-AS1	hsa-miR-143-3p	RP11-536K7.3	hsa-miR-378a-3p	AC097467.2
hsa-miR-186-5p	LINC00472	hsa-miR-143-3p	LINC00216	hsa-miR-27b-3p	RP11-27G22.1
hsa-miR-374b-5p	RP11-403A21.1	hsa-miR-499a-5p	LINC00216	hsa-miR-26b-5p	RP11-439C15.4
hsa-miR-199a-5p	RP11-267N12.1	hsa-miR-421	RP11-314C16.1	hsa-miR-499a-5p	XXyac-YX155B6.5
hsa-miR-186-5p	GDNF-AS1	hsa-miR-221-3p	RP11-326A19.3	hsa-miR-146b-5p	XXyac-YX155B6.5
hsa-miR-421	AC007126.1	hsa-miR-146b-5p	AC073115.7	hsa-miR-186-5p	RP11-64D24.4
hsa-miR-27b-3p	RP11-875O11.3	hsa-miR-186-5p	RP11-89N17.4	hsa-miR-125b-5p	RP11-64D24.4
hsa-miR-125b-5p	RP11-875O11.3	hsa-miR-27b-3p	XXbac-BPG248L24.13	hsa-miR-148b-3p	RP11-64D24.4
hsa-miR-499a-5p	RP11-497G19.7	hsa-miR-34a-5p	RP11-394J1.2	hsa-miR-148a-3p	RP11-64D24.4
hsa-miR-378h	LINC01436	hsa-miR-143-3p	RP11-394I13.2	hsa-miR-378h	ACTA2-AS1
hsa-miR-146b-5p	RP11-238K6.1	hsa-miR-374b-5p	RP11-505E24.3	hsa-miR-378a-3p	ACTA2-AS1
hsa-miR-186-5p	RP11-238K6.1	hsa-miR-143-3p	RP5-839B4.8	hsa-miR-143-3p	ACTA2-AS1
hsa-miR-146b-5p	CTC-338M12.6	hsa-miR-146b-5p	RP5-839B4.8	hsa-miR-27b-3p	LINC01355
hsa-miR-199a-5p	AC006262.4	hsa-miR-34a-5p	CTD-2527I21.15	hsa-miR-186-5p	LINC01355
hsa-miR-499a-5p	RP11-468H14.2	hsa-miR-148b-3p	PTCSC3	hsa-miR-186-5p	AC012593.1
hsa-miR-34a-5p	RP11-642D21.1	hsa-miR-148a-3p	PTCSC3	hsa-miR-146b-5p	AC012593.1
hsa-miR-146b-5p	SC22CB-109E1.1	hsa-miR-499a-5p	RP5-991G20.6	hsa-miR-27b-3p	RP11-316M20.1
hsa-miR-26b-5p	SC22CB-109E1.1	hsa-miR-27b-3p	RP11-181B11.1	hsa-miR-34a-5p	LINC00906
hsa-miR-143-3p	SC22CB-109E1.1	hsa-miR-143-3p	CTC-498M16.2	hsa-miR-27b-3p	RP11-1008C21.1

hsa-miR-421	SC22CB-109E1.1	hsa-miR-186-5p	LINC01315	hsa-miR-26b-5p	RP11-1008C21.1
hsa-miR-125b-5p	RP1-60O19.1	hsa-miR-143-3p	INHBA-AS1	hsa-miR-140-3p	RP11-1008C21.1
hsa-miR-146b-5p	RP1-60O19.1	hsa-miR-374b-5p	INHBA-AS1	hsa-miR-146b-5p	RP11-285E9.5
hsa-miR-34a-5p	RP11-451B8.1	hsa-miR-374b-5p	RP5-998N21.4	hsa-miR-25-3p	LINC00533
hsa-miR-374b-5p	RP11-210K20.5	hsa-miR-34a-5p	RP5-998N21.4	hsa-miR-186-5p	LINC00304
hsa-miR-146b-5p	RP11-210K20.5	hsa-miR-148a-3p	RP11-381O6.1	hsa-miR-148b-3p	AP001092.4
hsa-miR-186-5p	XXbac- B476C20.13	hsa-miR-27b-3p	RP11-44F14.8	hsa-miR-148a-3p	AP001092.4
hsa-miR-34a-5p	XXbac- B476C20.13	hsa-miR-186-5p	RP11-44F14.8	hsa-miR-143-3p	AC007038.7
hsa-miR-146b-5p	RP11-121A8.1	hsa-miR-143-3p	RP11-44F14.8	hsa-miR-34a-5p	LINC01359
hsa-miR-140-3p	RP11-121A8.1	hsa-miR-146b-5p	RP11-44F14.8	hsa-miR-221-3p	LINC01359
hsa-miR-221-3p	RP11-867G23.3	hsa-miR-499a-5p	RP11-44F14.8	hsa-miR-27b-3p	RP1-287H17.1
hsa-miR-27b-3p	RP11-761I4.1	hsa-miR-374b-5p	RP11-44F14.8	hsa-miR-143-3p	LINC00865
hsa-miR-34a-5p	RP11-761I4.1	hsa-miR-125b-5p	RP11-44F14.8	hsa-miR-146b-5p	LINC00865
hsa-miR-26b-5p	RP11-761I4.1	hsa-miR-186-5p	LLNLR-246C6.1	hsa-miR-25-3p	CTD-2562J15.6
hsa-miR-34a-5p	RP11-102N12.3	hsa-miR-27b-3p	LLNLR-246C6.1	hsa-miR-143-3p	CTC-265F19.1
hsa-miR-140-3p	RP11-336K24.12	hsa-miR-421	LLNLR-246C6.1	hsa-miR-499a-5p	LINC01235
hsa-miR-125b-5p	RP11-138P22.1	hsa-miR-140-3p	AP004372.1	hsa-miR-221-3p	LINC01235
hsa-miR-221-3p	RP11-567J20.3	hsa-miR-374b-5p	RP11-231E19.1	hsa-miR-27b-3p	RP11-588H23.3
hsa-miR-199a-5p	CTD-3216D2.5	hsa-miR-140-3p	RP11-231E19.1	hsa-miR-27b-3p	CTD-2538C1.3
hsa-miR-146b-5p	CTD-3216D2.5	hsa-miR-25-3p	LINC01021	hsa-miR-186-5p	AC010095.5
hsa-miR-186-5p	RP11-9E17.1	hsa-miR-186-5p	LINC01021	hsa-miR-143-3p	AC024084.1
hsa-miR-374b-5p	RP11-346C4.3	hsa-miR-25-3p	RP11-92B11.3	hsa-miR-143-3p	AL133493.2
hsa-miR-374b-5p	RP11-629G13.1	hsa-miR-27b-3p	RP11-92B11.3	hsa-miR-34a-5p	RP11-65L3.2
hsa-miR-125b-5p	RP11-352D13.5	hsa-miR-125b-5p	RP4-669P10.16	hsa-miR-186-5p	RP11-65L3.2
hsa-miR-27b-3p	RP11-91J3.3	hsa-miR-378a-3p	RP11-680F20.10	hsa-miR-199a-5p	RP11-65L3.2
hsa-miR-143-3p	CTD-2571L23.8	hsa-miR-378h	RP11-680F20.10	hsa-miR-125b-5p	LINC01426



hsa-miR-25-3p	CTD-2571L23.8	hsa-miR-146b-5p	RP11-680F20.10	hsa-miR-143-3p	LINC01426
hsa-miR-146b-5p	RP4-655J12.4	hsa-miR-140-3p	RP11-680F20.10	hsa-miR-186-5p	MIR155HG
hsa-miR-27b-3p	RP11-81H14.2	hsa-miR-374b-5p	RP11-680F20.10	hsa-miR-140-3p	MIR155HG
hsa-miR-27b-3p	AP000221.1	hsa-miR-421	AC002044.4	hsa-miR-499a-5p	RP11-359E10.1
hsa-miR-378a-3p	AC007461.2	hsa-miR-27b-3p	AC017002.2	hsa-miR-143-3p	SIRPG-AS1
hsa-miR-378h	AC007461.2	hsa-miR-421	RP11-385N23.1	hsa-miR-143-3p	CTB-171A8.1
hsa-miR-143-3p	AC007461.2	hsa-miR-199a-5p	AC097495.3	hsa-miR-143-3p	AC108676.1
hsa-miR-34a-5p	AC007461.2	hsa-miR-25-3p	AC097495.3	hsa-miR-143-3p	Z83844.1
hsa-miR-27b-3p	RP11-710F7.3	hsa-miR-186-5p	RP3-333A15.1	hsa-miR-140-3p	RP11-528A4.2
hsa-miR-421	RP11-283C24.1	hsa-miR-499a-5p	RP3-333A15.1	hsa-miR-143-3p	CDKN2B-AS1
hsa-miR-148a-3p	RP11-540A21.2	hsa-miR-499a-5p	AC069363.1	hsa-miR-140-3p	CDKN2B-AS1
hsa-miR-148b-3p	RP11-540A21.2	hsa-miR-27b-3p	AC069363.1	hsa-miR-148a-3p	CDKN2B-AS1
hsa-miR-186-5p	RP11-540A21.2	hsa-miR-146b-5p	AC069363.1	hsa-miR-148b-3p	CDKN2B-AS1
hsa-miR-34a-5p	C1QTNF1-AS1	hsa-miR-146b-5p	PCAT18	hsa-miR-125b-5p	AP000472.2
hsa-miR-186-5p	CLYBL-AS2	hsa-miR-34a-5p	RP11-17G12.2	hsa-miR-143-3p	AP000472.2
hsa-miR-26b-5p	RP11-679B19.1	hsa-miR-146b-5p	RP11-417B4.2	hsa-miR-27b-3p	AP000344.3
hsa-miR-146b-5p	RP1-155D22.2	hsa-miR-34a-5p	RP11-417B4.2	hsa-miR-186-5p	PVT1
hsa-miR-125b-5p	CTD-2353F22.1	hsa-miR-143-3p	RP11-417B4.2	hsa-miR-140-3p	PVT1
hsa-miR-148b-3p	SNHG24	hsa-miR-140-3p	RP1-197B17.5	hsa-miR-374b-5p	PVT1
hsa-miR-148b-3p	RBMS3-AS2	hsa-miR-186-5p	CTB-114C7.4	hsa-miR-148b-3p	PVT1
hsa-miR-27b-3p	LINC00880	hsa-miR-374b-5p	CTB-114C7.4	hsa-miR-186-5p	AF011889.2
hsa-miR-499a-5p	RP11-362F19.3	hsa-miR-143-3p	RP5-1014D13.2	hsa-miR-378a-3p	RP4-647J21.1
hsa-miR-143-3p	RP11-212I21.2	hsa-miR-25-3p	RP5-1014D13.2	hsa-miR-378h	RP4-647J21.1
hsa-miR-27b-3p	RP11-212I21.2	hsa-miR-26b-5p	RP5-1014D13.2	hsa-miR-26b-5p	LINC00174
hsa-miR-186-5p	LINC00589	hsa-miR-186-5p	RP5-1014D13.2	hsa-miR-378h	LINC00174
hsa-miR-143-3p	LINC00589	hsa-miR-199a-5p	RP5-1014D13.2	hsa-miR-378a-3p	LINC00174
hsa-miR-27b-3p	RP11-383H13.1	hsa-miR-27b-3p	RP11-96O20.5	hsa-miR-421	LINC00174
hsa-miR-186-5p	RP11-383H13.1	hsa-miR-27b-3p	OSTM1-AS1	hsa-miR-143-3p	LINC00174

hsa-miR-34a-5p	RP11-383H13.1	hsa-miR-125b-5p	RP11-661A12.9	hsa-miR-148b-3p	LINC00174
hsa-miR-374b-5p	RP1-102K2.8	hsa-miR-34a-5p	RP11-1069G10.1	hsa-miR-25-3p	LINC00174
hsa-miR-186-5p	RP11-13K12.2	hsa-miR-143-3p	RP11-1069G10.1	hsa-miR-148a-3p	RP11-489G11.3
hsa-miR-374b-5p	RP11-81H14.1	hsa-miR-378h	RP11-434H6.6	hsa-miR-148b-3p	RP11-489G11.3
hsa-miR-143-3p	RP5-1120P11.3	hsa-miR-140-3p	RP11-434H6.6	hsa-miR-125b-5p	RP11-431J24.2
hsa-miR-125b-5p	RP4-671O14.7	hsa-miR-378a-3p	RP11-434H6.6	hsa-miR-421	RP11-431J24.2
hsa-miR-27b-3p	RP4-671O14.7	hsa-miR-143-3p	RP3-412A9.17	hsa-miR-186-5p	RP1-102K2.6
hsa-miR-421	RP4-671O14.7	hsa-miR-199a-5p	RP3-412A9.17	hsa-miR-27b-3p	RP11-508N22.13
hsa-miR-143-3p	RP4-671O14.7	hsa-miR-26b-5p	RP3-412A9.17	hsa-miR-143-3p	CYP51A1-AS1
hsa-miR-148b-3p	RP4-671O14.7	hsa-miR-27b-3p	RP3-412A9.17	hsa-miR-146b-5p	MIR222HG
hsa-miR-221-3p	RP4-671O14.7	hsa-miR-148b-3p	RP3-412A9.17	hsa-miR-125b-5p	RP1-79C4.4
hsa-miR-148a-3p	RP4-671O14.7	hsa-miR-148a-3p	RP3-412A9.17	hsa-miR-27b-3p	RP1-79C4.4
hsa-miR-186-5p	RP4-671O14.7	hsa-miR-186-5p	RP3-412A9.17	hsa-miR-421	IBA57-AS1
hsa-miR-26b-5p	RP4-671O14.7	hsa-miR-25-3p	RP3-412A9.17	hsa-miR-199a-5p	RP4-580N22.2
hsa-miR-374b-5p	RP4-671O14.7	hsa-miR-378h	RP3-412A9.17	hsa-miR-186-5p	RP11-359E8.5
hsa-miR-421	RP1-29C18.8	hsa-miR-378a-3p	RP3-412A9.17	hsa-miR-25-3p	RP11-359E8.5
hsa-miR-421	RP11-452H21.4	hsa-miR-499a-5p	RP3-412A9.17	hsa-miR-186-5p	LINC01440
hsa-miR-143-3p	RP11-452H21.4	hsa-miR-374b-5p	AC002117.1	hsa-miR-26b-5p	RP4-781K5.6
hsa-miR-34a-5p	RP11-331F9.3	hsa-miR-125b-5p	RP11-517C16.2	hsa-miR-34a-5p	RP11-982M15.6
hsa-miR-34a-5p	RP11-511B23.2	hsa-miR-125b-5p	MIRLET7BHG	hsa-miR-140-3p	RP11-426C22.5
hsa-miR-27b-3p	FGF14-IT1	hsa-miR-146b-5p	RP11-982M15.7	hsa-miR-374b-5p	RP11-30P6.6
hsa-miR-125b-5p	RP11-261P9.4	hsa-miR-143-3p	C20orf203	hsa-miR-146b-5p	RP11-30P6.6
hsa-miR-499a-5p	PRICKLE2-AS1	hsa-miR-146b-5p	RAP2C-AS1	hsa-miR-140-3p	RP11-30P6.6
hsa-miR-140-3p	PRICKLE2-AS1	hsa-miR-186-5p	RAP2C-AS1	hsa-miR-146b-5p	RP11-20B24.5
hsa-miR-27b-3p	RP3-368B9.2	hsa-miR-125b-5p	RP11-91P24.6	hsa-miR-146b-5p	RP11-149I23.3
hsa-miR-34a-5p	RP3-368B9.2	hsa-miR-27b-3p	RP11-158H5.8	hsa-miR-148b-3p	HOXA11-AS
hsa-miR-378a-3p	AC116366.6	hsa-miR-26b-5p	RP5-1112D6.7	hsa-miR-146b-5p	HOXA11-AS
hsa-miR-378h	AC116366.6	hsa-miR-34a-5p	GS1-600G8.5	hsa-miR-148a-3p	HOXA11-AS

hsa-miR-25-3p	AC116366.6	hsa-miR-125b-5p	RP11-380J14.1	hsa-miR-27b-3p	AP000233.4
hsa-miR-125b-5p	RP11-371F15.3	hsa-miR-199a-5p	RP11-468E2.5	hsa-miR-26b-5p	RP11-547D24.1
hsa-miR-26b-5p	RP4-761J14.8	hsa-miR-34a-5p	RP3-322G13.7	hsa-miR-27b-3p	FAM225B
hsa-miR-378h	RP4-761J14.8	hsa-miR-140-3p	RP3-323N1.2	hsa-miR-34a-5p	RP4-782L23.2
hsa-miR-378a-3p	RP4-761J14.8	hsa-miR-143-3p	RP11-63A11.1	hsa-miR-125b-5p	RP4-782L23.2
hsa-miR-199a-5p	RP4-761J14.8	hsa-miR-374b-5p	RP11-584P21.2	hsa-miR-374b-5p	RP11-999E24.3
hsa-miR-146b-5p	AC006272.2	hsa-miR-25-3p	RP11-584P21.2	hsa-miR-26b-5p	CTD-2537I9.13
hsa-miR-125b-5p	AC006272.2	hsa-miR-143-3p	CTD-3020H12.4	hsa-miR-27b-3p	AF064858.8
hsa-miR-186-5p	AC006272.2	hsa-miR-186-5p	RP11-13J8.1	hsa-miR-27b-3p	RP11-66N24.6
hsa-miR-34a-5p	RP11-727F15.9	hsa-miR-27b-3p	FAM225A	hsa-miR-374b-5p	RP11-571I18.5
hsa-miR-140-3p	XXbac- BPG157A10.21	hsa-miR-199a-5p	RP1-27K12.2	hsa-miR-27b-3p	RP11-571I18.5
hsa-miR-186-5p	WT1-AS	hsa-miR-378h	RP11-467L24.1	hsa-miR-146b-5p	RP11-575F12.1
hsa-miR-34a-5p	WT1-AS	hsa-miR-378a-3p	RP11-467L24.1	hsa-miR-146b-5p	RP11-92C4.3
hsa-miR-374b-5p	WT1-AS	hsa-miR-143-3p	RP11-467L24.1	hsa-miR-421	RP11-322E11.5
hsa-miR-186-5p	CTD-2587M2.1	hsa-miR-27b-3p	CTD-2562J15.4	hsa-miR-27b-3p	RP11-322E11.5
hsa-miR-148b-3p	AC007362.3	hsa-miR-34a-5p	AC017101.10	hsa-miR-140-3p	ERVH48-1
hsa-miR-186-5p	RP11-680G24.6	hsa-miR-125b-5p	CTA-221G9.7	hsa-miR-499a-5p	ERVH48-1
hsa-miR-143-3p	CTB-181H17.1	hsa-miR-374b-5p	LINC00240	hsa-miR-27b-3p	ERVH48-1
hsa-miR-125b-5p	LINC00565	hsa-miR-146b-5p	LINC00240	hsa-miR-374b-5p	ERVH48-1
hsa-miR-26b-5p	LINC00565	hsa-miR-499a-5p	LINC00240	hsa-miR-34a-5p	ERVH48-1
hsa-miR-143-3p	GABPB1-AS1	hsa-miR-125b-5p	RP11-481J2.2	hsa-miR-421	ERVH48-1
hsa-miR-186-5p	GABPB1-AS1	hsa-miR-378h	RP11-481J2.2	hsa-miR-186-5p	ERVH48-1
hsa-miR-499a-5p	GABPB1-AS1	hsa-miR-378a-3p	RP11-481J2.2	hsa-miR-125b-5p	AP001046.6
hsa-miR-374b-5p	GABPB1-AS1	hsa-miR-125b-5p	AATBC	hsa-miR-34a-5p	RP11-3P17.5
hsa-miR-421	GABPB1-AS1	hsa-miR-27b-3p	AATBC	hsa-miR-26b-5p	CTB-107G13.1
hsa-miR-26b-5p	GABPB1-AS1	hsa-miR-186-5p	RP11-1M18.1	hsa-miR-378a-3p	CTD-2530N21.5
hsa-miR-199a-5p	RP11-61F12.1	hsa-miR-186-5p	TTLL7-IT1	hsa-miR-378h	CTD-2530N21.5

hsa-miR-499a-5p	LINC00535	hsa-miR-125b-5p	RP4-798A10.4	hsa-miR-148b-3p	AP000282.3
hsa-miR-199a-5p	LINC00535	hsa-miR-27b-3p	CTB-178M22.1	hsa-miR-148a-3p	AP000282.3
hsa-miR-143-3p	RP11-525A16.4	hsa-miR-186-5p	RP11-526I2.5	hsa-miR-499a-5p	RP5-921G16.2
hsa-miR-27b-3p	RP11-293M10.6	hsa-miR-27b-3p	RP11-526I2.5	hsa-miR-143-3p	CH17-264L24.1
hsa-miR-140-3p	LINC01234	hsa-miR-421	RP11-526I2.5	hsa-miR-199a-5p	CH17-264L24.1
hsa-miR-27b-3p	LINC01543	hsa-miR-199a-5p	RP11-526I2.5	hsa-miR-125b-5p	CH17-264L24.1
hsa-miR-146b-5p	BTBD9-AS1	hsa-miR-146b-5p	AC009303.1	hsa-miR-374b-5p	CH17-264L24.1
hsa-miR-199a-5p	BTBD9-AS1	hsa-miR-186-5p	ARAP1-AS2	hsa-miR-27b-3p	RP11-753H16.5
hsa-miR-27b-3p	LINC00608	hsa-miR-146b-5p	RP11-265N7.1	hsa-miR-125b-5p	FLJ45079
hsa-miR-421	RP3-492J12.2	hsa-miR-186-5p	RP11-265N7.1	hsa-miR-199a-5p	FLJ45079
hsa-miR-25-3p	LINC00365	hsa-miR-148a-3p	RP11-265N7.1	hsa-miR-186-5p	RP11-154H23.3
hsa-miR-34a-5p	LINC00365	hsa-miR-143-3p	RP11-436K8.1	hsa-miR-34a-5p	RP11-154H23.3
hsa-miR-186-5p	RP1-140K8.5	hsa-miR-34a-5p	RP11-436K8.1	hsa-miR-34a-5p	RP11-669E14.6
hsa-miR-186-5p	RP11-723O4.9	hsa-miR-27b-3p	CARS-AS1	hsa-miR-186-5p	RP11-504A18.1
hsa-miR-378h	RP11-723O4.9	hsa-miR-26b-5p	RP11-245P10.6	hsa-miR-499a-5p	RP11-504A18.1
hsa-miR-378a-3p	RP11-723O4.9	hsa-miR-378a-3p	LINC01133	hsa-miR-143-3p	RP11-525K10.3
hsa-miR-148b-3p	AC104820.2	hsa-miR-378h	LINC01133	hsa-miR-143-3p	LCMT1-AS1
hsa-miR-143-3p	RP11-794M8.1	hsa-miR-186-5p	RP11-403I13.5	hsa-miR-186-5p	LCMT1-AS1
hsa-miR-199a-5p	RP11-298D21.1	hsa-miR-421	LINC01433	hsa-miR-27b-3p	LCMT1-AS1
hsa-miR-143-3p	AC004231.2	hsa-miR-140-3p	LINC00632	hsa-miR-199a-5p	AP003774.1
hsa-miR-146b-5p	CTC-251D13.1	hsa-miR-27b-3p	AC144831.1	hsa-miR-34a-5p	AC007879.1
hsa-miR-140-3p	RP11-423P10.2	hsa-miR-125b-5p	PRKG1-AS1	hsa-miR-186-5p	RP11-315O6.1
hsa-miR-186-5p	CFLAR-AS1	hsa-miR-27b-3p	MIMT1	hsa-miR-499a-5p	RP11-92F20.1
hsa-miR-146b-5p	CFLAR-AS1	hsa-miR-143-3p	MIMT1	hsa-miR-27b-3p	RP11-562A8.4
hsa-miR-143-3p	CFLAR-AS1	hsa-miR-421	RP11-1105G2.4	hsa-miR-27b-3p	CTD-2659N19.9
hsa-miR-125b-5p	CFLAR-AS1	hsa-miR-34a-5p	AC012668.2	hsa-miR-146b-5p	WI2-85898F10.2
hsa-miR-27b-3p	RP11-152H18.4	hsa-miR-221-3p	LINC00158	hsa-miR-378a-3p	RP11-322E11.2
hsa-miR-25-3p	AC016700.2	hsa-miR-143-3p	LINC00158	hsa-miR-378h	RP11-322E11.2

hsa-miR-143-3p	AC016644.1	hsa-miR-186-5p	LINC00158	hsa-miR-186-5p	RP11-322E11.2
hsa-miR-34a-5p	RP4-673M15.1	hsa-miR-25-3p	AC093375.1	hsa-miR-374b-5p	RP11-322E11.2
hsa-miR-143-3p	RP11-370A5.2	hsa-miR-199a-5p	RP11-260M2.1	hsa-miR-421	RP11-322E11.2
hsa-miR-27b-3p	RP11-223P11.3	hsa-miR-221-3p	AF067845.1	hsa-miR-140-3p	RP11-317N8.3
hsa-miR-374b-5p	AC007163.3	hsa-miR-186-5p	RP11-37L2.1	hsa-miR-186-5p	RP11-244M2.1
hsa-miR-27b-3p	RP11-707P17.2	hsa-miR-27b-3p	LINC00996	hsa-miR-146b-5p	RP11-244M2.1
hsa-miR-34a-5p	RP11-544A12.4	hsa-miR-186-5p	LINC00996	hsa-miR-421	RP11-244M2.1
hsa-miR-27b-3p	RP11-278A23.2	hsa-miR-27b-3p	RP11-44N11.1	hsa-miR-186-5p	AC005220.3
hsa-miR-26b-5p	LL21NC02- 1C16.2	hsa-miR-27b-3p	AC025171.1	hsa-miR-146b-5p	AC005220.3
hsa-miR-125b-5p	RP11-106D4.2	hsa-miR-143-3p	AC025171.1	hsa-miR-421	AC003984.1
hsa-miR-146b-5p	RP11-429B14.4	hsa-miR-26b-5p	AC025171.1	hsa-miR-143-3p	AC003984.1
hsa-miR-221-3p	RP11-563P16.1	hsa-miR-27b-3p	ENOX1-AS1	hsa-miR-26b-5p	AC003984.1
hsa-miR-143-3p	RP11-636O21.1	hsa-miR-34a-5p	CTD-2560E9.5	hsa-miR-374b-5p	AC003984.1
hsa-miR-27b-3p	AC105402.4	hsa-miR-499a-5p	RP11-519G16.3	hsa-miR-143-3p	RP11-944C7.1
hsa-miR-421	AC105402.4	hsa-miR-374b-5p	RP11-519G16.3	hsa-miR-186-5p	RP11-944C7.1
hsa-miR-186-5p	HNRNPU-AS1	hsa-miR-140-3p	LINC01183	hsa-miR-34a-5p	CTC-499B15.7
hsa-miR-26b-5p	HNRNPU-AS1	hsa-miR-499a-5p	CTD-2288O8.1	hsa-miR-143-3p	RP11-307P5.1
hsa-miR-27b-3p	HNRNPU-AS1	hsa-miR-27b-3p	RP11-354K1.1	hsa-miR-27b-3p	RP11-307P5.1
hsa-miR-421	RP11-480D4.6	hsa-miR-143-3p	RP11-373E16.3	hsa-miR-140-3p	RP11-255M2.1
hsa-miR-148a-3p	HOTAIR	hsa-miR-186-5p	RP11-373E16.3	hsa-miR-25-3p	RP11-346J10.1
hsa-miR-148b-3p	HOTAIR	hsa-miR-499a-5p	RP11-373E16.3	hsa-miR-27b-3p	RP5-1116H23.4
hsa-miR-221-3p	HOTAIR	hsa-miR-146b-5p	RP11-373E16.3	hsa-miR-140-3p	VAC14-AS1
hsa-miR-148b-3p	AC002064.4	hsa-miR-26b-5p	AC008277.1	hsa-miR-421	EIF1AX-AS1
hsa-miR-186-5p	C3orf67-AS1	hsa-miR-186-5p	AC006548.28	hsa-miR-143-3p	RP11-68I3.5
hsa-miR-140-3p	C3orf67-AS1	hsa-miR-27b-3p	AC006548.28	hsa-miR-27b-3p	LINC01179
hsa-miR-27b-3p	RP11-528G1.2	hsa-miR-125b-5p	AC006548.28	hsa-miR-34a-5p	RP11-752D24.2
hsa-miR-125b-5p	RP11-406H4.1	hsa-miR-421	AC006548.28	hsa-miR-186-5p	RP11-752D24.2

hsa-miR-186-5p	AC096669.1	hsa-miR-146b-5p	AC006548.28	hsa-miR-186-5p	RP11-545A16.4
hsa-miR-199a-5p	AC096669.1	hsa-miR-140-3p	AC006548.28	hsa-miR-186-5p	RP11-73O6.3
hsa-miR-25-3p	LINC01428	hsa-miR-374b-5p	AC006548.28	hsa-miR-34a-5p	RP11-168K11.3
hsa-miR-34a-5p	RP4-695O20.1	hsa-miR-378h	AC006548.28	hsa-miR-25-3p	RP11-664D7.4
hsa-miR-27b-3p	AP000695.6	hsa-miR-378a-3p	AC006548.28	hsa-miR-374b-5p	RP11-79H23.3
hsa-miR-26b-5p	RP4-694A7.2	hsa-miR-26b-5p	AC006548.28	hsa-miR-27b-3p	RP11-79H23.3
hsa-miR-143-3p	HNF4A-AS1	hsa-miR-143-3p	AC006548.28	hsa-miR-499a-5p	RP11-79H23.3
hsa-miR-499a-5p	RP11-366L20.2	hsa-miR-34a-5p	AC006548.28	hsa-miR-27b-3p	RP11-981G7.1
hsa-miR-378h	RP11-366L20.2	hsa-miR-148a-3p	AC006548.28	hsa-miR-146b-5p	RP11-981G7.1
hsa-miR-27b-3p	RP11-449P15.2	hsa-miR-199a-5p	AC006548.28	hsa-miR-421	RP11-981G7.1
hsa-miR-143-3p	RP11-91K8.5	hsa-miR-148b-3p	AC006548.28	hsa-miR-186-5p	RP11-981G7.1
hsa-miR-26b-5p	AC005498.3	hsa-miR-25-3p	AC006548.28	hsa-miR-421	IGBP1-AS1
hsa-miR-148b-3p	AC005498.3	hsa-miR-499a-5p	AC006548.28	hsa-miR-148a-3p	CTC-523E23.1
hsa-miR-25-3p	AC159540.1	hsa-miR-221-3p	AC006548.28	hsa-miR-34a-5p	RP11-617F23.1
hsa-miR-186-5p	AC159540.1	hsa-miR-27b-3p	LINC00925	hsa-miR-146b-5p	RP11-617F23.1
hsa-miR-34a-5p	CTD-2537I9.12	hsa-miR-125b-5p	FLJ16779	hsa-miR-27b-3p	RP1-239B22.5
hsa-miR-25-3p	GTF3C2-AS1	hsa-miR-34a-5p	FLJ16779	hsa-miR-27b-3p	CTA-797E19.1
hsa-miR-378h	AC007292.6	hsa-miR-186-5p	RP11-686D22.4	hsa-miR-25-3p	CTD-2332E11.2
hsa-miR-27b-3p	AC078942.1	hsa-miR-27b-3p	FAM66A	hsa-miR-34a-5p	SIK3-IT1
hsa-miR-125b-5p	RP3-365O12.2	hsa-miR-125b-5p	FAM66A	hsa-miR-143-3p	CTA-243E7.1
hsa-miR-186-5p	RP4-671O14.6	hsa-miR-143-3p	LOXL1-AS1	hsa-miR-148a-3p	CTA-243E7.1
hsa-miR-143-3p	RP4-671O14.6	hsa-miR-186-5p	LOXL1-AS1	hsa-miR-499a-5p	CTA-243E7.1
hsa-miR-125b-5p	RP4-671O14.6	hsa-miR-374b-5p	LOXL1-AS1	hsa-miR-27b-3p	CTA-243E7.1
hsa-miR-25-3p	RP4-671O14.6	hsa-miR-421	LOXL1-AS1	hsa-miR-148b-3p	CTA-243E7.1
hsa-miR-421	TBX5-AS1	hsa-miR-34a-5p	LINC00595	hsa-miR-125b-5p	CTA-243E7.1
hsa-miR-378a-3p	TBX5-AS1	hsa-miR-378h	EPN2-AS1	hsa-miR-221-3p	CTA-243E7.1
hsa-miR-378h	TBX5-AS1	hsa-miR-378a-3p	EPN2-AS1	hsa-miR-26b-5p	CTA-243E7.1
hsa-miR-421	RP11-613F22.8	hsa-miR-26b-5p	RP11-430H10.1	hsa-miR-374b-5p	RP11-61K9.2

hsa-miR-186-5p	RP11-613F22.8	hsa-miR-378a-3p	CTD-3193K9.3	hsa-miR-378a-3p	TEX41
hsa-miR-26b-5p	DDX11-AS1	hsa-miR-378h	CTD-3193K9.3	hsa-miR-143-3p	TEX41
hsa-miR-26b-5p	RP3-473B4.3	hsa-miR-148b-3p	LA16c-390H2.4	hsa-miR-378h	TEX41
hsa-miR-186-5p	TMCC1-AS1	hsa-miR-148a-3p	LA16c-390H2.4	hsa-miR-148b-3p	TEX41
hsa-miR-199a-5p	TMCC1-AS1	hsa-miR-34a-5p	LINC01252	hsa-miR-148a-3p	TEX41
hsa-miR-199a-5p	CTD-2542L18.1	hsa-miR-199a-5p	CTD-2525I3.5	hsa-miR-186-5p	TEX41
hsa-miR-421	CTD-2542L18.1	hsa-miR-186-5p	AC092675.3	hsa-miR-421	TEX41
hsa-miR-143-3p	RP11-903H12.3	hsa-miR-186-5p	CTC-573N18.1	hsa-miR-25-3p	TEX41
hsa-miR-148a-3p	RTCA-AS1	hsa-miR-148a-3p	RP11-70D24.2	hsa-miR-27b-3p	TEX41
hsa-miR-148b-3p	RTCA-AS1	hsa-miR-148b-3p	RP11-70D24.2	hsa-miR-125b-5p	TEX41
hsa-miR-148a-3p	RP11-91K9.1	hsa-miR-27b-3p	CTC-499B15.6	hsa-miR-186-5p	NEAT1
hsa-miR-148b-3p	RP11-91K9.1	hsa-miR-143-3p	RP11-24F11.2	hsa-miR-27b-3p	NEAT1
hsa-miR-143-3p	AC004837.5	hsa-miR-27b-3p	CTD-2240J17.1	hsa-miR-140-3p	NEAT1
hsa-miR-34a-5p	AC010127.3	hsa-miR-143-3p	CTA-929C8.6	hsa-miR-34a-5p	NEAT1
hsa-miR-421	AC010127.3	hsa-miR-199a-5p	CTA-929C8.6	hsa-miR-26b-5p	NEAT1
hsa-miR-186-5p	AC010127.3	hsa-miR-186-5p	CTA-929C8.6	hsa-miR-146b-5p	NEAT1
hsa-miR-140-3p	AC010127.3	hsa-miR-146b-5p	F10-AS1	hsa-miR-148a-3p	NEAT1
hsa-miR-27b-3p	CTB-138E5.1	hsa-miR-146b-5p	RP11-415J8.7	hsa-miR-125b-5p	NEAT1
hsa-miR-143-3p	RP5-836N17.4	hsa-miR-374b-5p	AC011343.1	hsa-miR-148b-3p	NEAT1
hsa-miR-374b-5p	LINC00461	hsa-miR-34a-5p	AC011343.1	hsa-miR-374b-5p	NEAT1
hsa-miR-27b-3p	LINC00461	hsa-miR-140-3p	AC011343.1	hsa-miR-421	NEAT1
hsa-miR-125b-5p	LINC00461	hsa-miR-143-3p	AC011343.1	hsa-miR-499a-5p	NEAT1
hsa-miR-221-3p	LINC00461	hsa-miR-421	RP5-1057B20.3	hsa-miR-27b-3p	RP11-1085N6.2
hsa-miR-25-3p	LINC00461	hsa-miR-186-5p	RP5-1057B20.3	hsa-miR-27b-3p	C9orf41-AS1
hsa-miR-140-3p	RP1-20B11.2	hsa-miR-27b-3p	RP11-674E16.4	hsa-miR-148a-3p	NFIA-AS2
hsa-miR-26b-5p	RP11-348N5.7	hsa-miR-374b-5p	RP11-674E16.4	hsa-miR-148b-3p	NFIA-AS2
hsa-miR-27b-3p	LINC01280	hsa-miR-140-3p	CTA-544A11.1	hsa-miR-27b-3p	RP11-89K21.1
hsa-miR-421	RP11-804N13.1	hsa-miR-146b-5p	CTA-544A11.1	hsa-miR-186-5p	RP11-89K21.1

hsa-miR-186-5p	RP11-804N13.1	hsa-miR-186-5p	CTA-544A11.1	hsa-miR-199a-5p	RP11-65M17.3
hsa-miR-374b-5p	RP13-192B19.2	hsa-miR-499a-5p	CTA-544A11.1	hsa-miR-374b-5p	RP11-65M17.3
hsa-miR-186-5p	RP13-192B19.2	hsa-miR-378a-3p	CTA-544A11.1	hsa-miR-221-3p	RP11-815J21.1
hsa-miR-143-3p	RP11-737O24.2	hsa-miR-499a-5p	RP11-2I17.4	hsa-miR-143-3p	LINC01146
hsa-miR-199a-5p	RP11-798M19.6	hsa-miR-186-5p	RP11-310H4.3	hsa-miR-374b-5p	RP11-259N19.1
hsa-miR-143-3p	LA16c-361A3.3	hsa-miR-27b-3p	RP11-127L20.3	hsa-miR-378a-3p	RP11-234K24.3
hsa-miR-148b-3p	LA16c-361A3.3	hsa-miR-148b-3p	CTD-2334D19.1	hsa-miR-26b-5p	RP11-234K24.3
hsa-miR-148a-3p	LA16c-361A3.3	hsa-miR-148a-3p	CTD-2334D19.1	hsa-miR-378h	RP11-234K24.3
hsa-miR-146b-5p	RP11-553L6.2	hsa-miR-27b-3p	RP11-379K22.2	hsa-miR-27b-3p	RP11-105N14.2
hsa-miR-499a-5p	RP11-553L6.2	hsa-miR-25-3p	RP11-379K22.2	hsa-miR-146b-5p	IDI2-AS1
hsa-miR-499a-5p	LINC00115	hsa-miR-146b-5p	RP3-466P17.1	hsa-miR-143-3p	RP5-1057I20.2
hsa-miR-27b-3p	RP11-837J7.4	hsa-miR-186-5p	RP3-466P17.1	hsa-miR-374b-5p	RP11-586K2.1
hsa-miR-125b-5p	RP11-227G15.9	hsa-miR-378a-3p	RP11-3P22.2	hsa-miR-125b-5p	RP11-586K2.1
hsa-miR-26b-5p	RP4-533D7.4	hsa-miR-378h	RP11-3P22.2	hsa-miR-199a-5p	RP11-586K2.1
hsa-miR-26b-5p	AP001429.1	hsa-miR-125b-5p	CTD-2201I18.1	hsa-miR-125b-5p	RP11-52J3.2
hsa-miR-27b-3p	AP001429.1	hsa-miR-186-5p	CTA-212A2.3	hsa-miR-148a-3p	CTD-3131K8.2
hsa-miR-374b-5p	RP3-523K23.2	hsa-miR-143-3p	CTA-212A2.3	hsa-miR-148b-3p	CTD-3131K8.2
hsa-miR-25-3p	RP3-523K23.2	hsa-miR-34a-5p	CTA-212A2.3	hsa-miR-26b-5p	RP11-513D5.2
hsa-miR-378h	RP11-323F24.4	hsa-miR-221-3p	CTA-212A2.3	hsa-miR-186-5p	KB-1552D7.2
hsa-miR-378a-3p	RP11-323F24.4	hsa-miR-378a-3p	RP11-374M1.5	hsa-miR-25-3p	KB-1552D7.2
hsa-miR-34a-5p	RP11-219E7.2	hsa-miR-378h	RP11-374M1.5	hsa-miR-125b-5p	KB-1552D7.2
hsa-miR-27b-3p	RP11-586D19.2	hsa-miR-27b-3p	RP11-855A2.3	hsa-miR-378a-3p	RP11-211N11.5
hsa-miR-199a-5p	RP11-757G1.6	hsa-miR-421	RP11-855A2.3	hsa-miR-378h	RP11-211N11.5
hsa-miR-221-3p	RP11-757G1.6	hsa-miR-125b-5p	RP11-855A2.3	hsa-miR-199a-5p	AC003003.5
hsa-miR-26b-5p	RP11-757G1.6	hsa-miR-186-5p	RP11-731J8.2	hsa-miR-25-3p	CTB-5E10.3
hsa-miR-125b-5p	RP11-757G1.6	hsa-miR-34a-5p	RP11-731J8.2	hsa-miR-27b-3p	RP11-689B22.2
hsa-miR-186-5p	RP11-757G1.6	hsa-miR-143-3p	AC099684.1	hsa-miR-143-3p	LINC00528
hsa-miR-374b-5p	RP11-757G1.6	hsa-miR-125b-5p	AC099684.1	hsa-miR-140-3p	LINC00528



hsa-miR-34a-5p	RP11-757G1.6	hsa-miR-125b-5p	RP11-42I10.1	hsa-miR-26b-5p	RP11-181K12.2
hsa-miR-421	LINC01108	hsa-miR-26b-5p	RP13-991F5.2	hsa-miR-186-5p	RP11-281P23.1
hsa-miR-374b-5p	STEAP3-AS1	hsa-miR-27b-3p	RP13-991F5.2	hsa-miR-499a-5p	TBL1XR1-AS1
hsa-miR-143-3p	GK-IT1	hsa-miR-186-5p	AC002429.5	hsa-miR-143-3p	RP11-266K4.9
hsa-miR-143-3p	LINC00284	hsa-miR-199a-5p	CCDC26	hsa-miR-499a-5p	RP11-266K4.9
hsa-miR-27b-3p	LINC00284	hsa-miR-499a-5p	RP11-255E6.6	hsa-miR-26b-5p	RP11-280K24.4
hsa-miR-125b-5p	LINC01152	hsa-miR-125b-5p	CTD-2231E14.8	hsa-miR-186-5p	RP11-280K24.4
hsa-miR-499a-5p	LINC00222	hsa-miR-148a-3p	RP11-47L3.1	hsa-miR-125b-5p	RP5-875O13.1
hsa-miR-26b-5p	LINC00222	hsa-miR-148b-3p	RP11-47L3.1	hsa-miR-143-3p	RP5-875O13.1
hsa-miR-143-3p	CTD-2269F5.1	hsa-miR-34a-5p	ZIM2-AS1	hsa-miR-146b-5p	LINC00494
hsa-miR-421	CTD-2269F5.1	hsa-miR-199a-5p	ZIM2-AS1	hsa-miR-140-3p	GCSAML-AS1
hsa-miR-25-3p	AC018730.4	hsa-miR-143-3p	ZIM2-AS1	hsa-miR-27b-3p	GCSAML-AS1
hsa-miR-26b-5p	RP4-635E18.8	hsa-miR-378a-3p	DNMBP-AS1	hsa-miR-421	GCSAML-AS1
hsa-miR-421	RP4-635E18.8	hsa-miR-378h	DNMBP-AS1	hsa-miR-148a-3p	GCSAML-AS1
hsa-miR-421	CTD-2377O17.1	hsa-miR-143-3p	DNMBP-AS1	hsa-miR-199a-5p	RP11-320P7.2
hsa-miR-148b-3p	DHRS4-AS1	hsa-miR-25-3p	AC004775.5	hsa-miR-146b-5p	RP11-320P7.2
hsa-miR-143-3p	DHRS4-AS1	hsa-miR-378a-3p	RP11-367J11.2	hsa-miR-27b-3p	LURAP1L-AS1
hsa-miR-148a-3p	DHRS4-AS1	hsa-miR-378h	RP11-367J11.2	hsa-miR-421	ZFAS1
hsa-miR-186-5p	RP11-329J18.3	hsa-miR-143-3p	RP11-367J11.2	hsa-miR-27b-3p	ZFAS1
hsa-miR-421	TMLHE-AS1	hsa-miR-27b-3p	RP11-367J11.2	hsa-miR-199a-5p	RP5-1142A6.9
hsa-miR-186-5p	RP11-363J20.1	hsa-miR-186-5p	RP5-1116H23.6	hsa-miR-186-5p	CTD-2292P10.4
hsa-miR-27b-3p	SPATA3-AS1	hsa-miR-499a-5p	LINC01343	hsa-miR-186-5p	RP11-646I6.6
hsa-miR-26b-5p	AC009505.2	hsa-miR-34a-5p	AC147651.5	hsa-miR-421	AC068039.4
hsa-miR-34a-5p	AC009505.2	hsa-miR-125b-5p	RP11-141J13.5	hsa-miR-25-3p	AC068039.4
hsa-miR-143-3p	RP11-445P17.3	hsa-miR-34a-5p	NAMA	hsa-miR-26b-5p	AC068039.4
hsa-miR-186-5p	RP11-517I3.1	hsa-miR-146b-5p	RP11-789C2.1	hsa-miR-374b-5p	AC068039.4
hsa-miR-421	RP11-705C15.3	hsa-miR-146b-5p	RP11-417E7.2	hsa-miR-186-5p	AC068039.4
hsa-miR-186-5p	RP11-705C15.3	hsa-miR-186-5p	RP11-417E7.2	hsa-miR-146b-5p	RP11-325K4.2

hsa-miR-25-3p	LLNLR-470E3.1	hsa-miR-34a-5p	CTA-414D7.1	hsa-miR-143-3p	RP11-598F7.4
hsa-miR-146b-5p	LLNLR-470E3.1	hsa-miR-421	CTA-414D7.1	hsa-miR-186-5p	RP11-598F7.4
hsa-miR-125b-5p	RP11-381N20.1	hsa-miR-125b-5p	CTA-414D7.1	hsa-miR-421	RP11-689K5.3
hsa-miR-148a-3p	RP11-73M18.8	hsa-miR-374b-5p	RP11-556E13.1	hsa-miR-143-3p	AC096579.13
hsa-miR-148b-3p	RP11-73M18.8	hsa-miR-143-3p	LINC01141	hsa-miR-186-5p	RP11-111E14.1
hsa-miR-421	RP11-434D9.1	hsa-miR-186-5p	CTB-129O4.1	hsa-miR-26b-5p	CTA-331P3.1
hsa-miR-146b-5p	RP11-434D9.1	hsa-miR-143-3p	RP11-158I9.5	hsa-miR-499a-5p	CTA-331P3.1
hsa-miR-143-3p	MLK7-AS1	hsa-miR-125b-5p	AP001055.6	hsa-miR-143-3p	AC019117.1
hsa-miR-186-5p	MLK7-AS1	hsa-miR-146b-5p	RP11-75L1.1	hsa-miR-140-3p	AC019117.1
hsa-miR-146b-5p	MLK7-AS1	hsa-miR-186-5p	RP11-75L1.1	hsa-miR-499a-5p	AC019181.2
hsa-miR-27b-3p	RP11-356J5.12	hsa-miR-378h	RP4-594I10.3	hsa-miR-34a-5p	LINC00640
hsa-miR-374b-5p	RP11-356J5.12	hsa-miR-378a-3p	RP4-594I10.3	hsa-miR-221-3p	RP11-1035H13.2
hsa-miR-186-5p	RP11-356J5.12	hsa-miR-27b-3p	RP4-594I10.3	hsa-miR-26b-5p	CTD-2506J14.1
hsa-miR-199a-5p	RP11-356J5.12	hsa-miR-146b-5p	PWRN1	hsa-miR-374b-5p	RP11-96C23.9
hsa-miR-140-3p	RP11-673E1.4	hsa-miR-186-5p	PWRN1	hsa-miR-140-3p	RP11-446J8.1
hsa-miR-199a-5p	RP11-673E1.4	hsa-miR-421	PWRN1	hsa-miR-125b-5p	AC096669.3
hsa-miR-374b-5p	RP11-560G2.1	hsa-miR-140-3p	PWRN1	hsa-miR-34a-5p	AC096669.3
hsa-miR-421	RP4-798A10.2	hsa-miR-499a-5p	PWRN1	hsa-miR-378h	CTC-366B18.4
hsa-miR-143-3p	RP11-275I4.2	hsa-miR-125b-5p	PWRN1	hsa-miR-378a-3p	CTC-366B18.4
hsa-miR-25-3p	RP11-279O17.1	hsa-miR-34a-5p	RP11-405M12.4	hsa-miR-148b-3p	CTC-366B18.4
hsa-miR-499a-5p	SLC16A1-AS1	hsa-miR-27b-3p	RP11-313D6.3	hsa-miR-374b-5p	CTC-366B18.4
hsa-miR-143-3p	SLC16A1-AS1	hsa-miR-143-3p	RP11-161H23.9	hsa-miR-125b-5p	RP11-244F12.3
hsa-miR-140-3p	AC007292.3	hsa-miR-34a-5p	F11-AS1	hsa-miR-148b-3p	RP11-244F12.3
hsa-miR-27b-3p	RP11-840I19.3	hsa-miR-140-3p	RP11-463D19.1	hsa-miR-140-3p	RP11-528N21.1
hsa-miR-34a-5p	RP11-840I19.3	hsa-miR-199a-5p	RP11-575L7.8	hsa-miR-186-5p	RP11-528N21.1
hsa-miR-140-3p	RP1-105O18.1	hsa-miR-186-5p	RP3-325F22.5	hsa-miR-186-5p	RP13-487P22.1
hsa-miR-378a-3p	LINC00313	hsa-miR-143-3p	AC005253.2	hsa-miR-143-3p	RP11-104N10.1
hsa-miR-378h	LINC00313	hsa-miR-499a-5p	RP11-84C10.4	hsa-miR-26b-5p	CTD-2044J15.1

hsa-miR-374b-5p	RP11-130L8.2	hsa-miR-26b-5p	RP11-84C10.4	hsa-miR-148b-3p	LINC00087
hsa-miR-421	RP11-309M7.1	hsa-miR-27b-3p	RP11-84C10.4	hsa-miR-378a-3p	DIO3OS
hsa-miR-221-3p	RP11-96D1.10	hsa-miR-374b-5p	LINC00890	hsa-miR-378h	DIO3OS
hsa-miR-374b-5p	RP11-338N10.3	hsa-miR-125b-5p	PSMG3-AS1	hsa-miR-374b-5p	SNHG22
hsa-miR-378h	AC093818.1	hsa-miR-34a-5p	AP001628.6	hsa-miR-148b-3p	RP11-433A10.3
hsa-miR-378a-3p	AC093818.1	hsa-miR-125b-5p	RP11-288L9.4	hsa-miR-148a-3p	RP11-433A10.3
hsa-miR-125b-5p	RP11-573D15.2	hsa-miR-27b-3p	RP11-713D19.1	hsa-miR-26b-5p	AC053503.4
hsa-miR-186-5p	AC078941.1	hsa-miR-125b-5p	LINC01224	hsa-miR-146b-5p	RP11-142C4.6
hsa-miR-148b-3p	AC078941.1	hsa-miR-186-5p	LINC01224	hsa-miR-148b-3p	RP11-142C4.6
hsa-miR-148a-3p	AC078941.1	hsa-miR-34a-5p	LINC01224	hsa-miR-34a-5p	RP11-142C4.6
hsa-miR-27b-3p	RAPGEF4-AS1	hsa-miR-143-3p	LINC01224	hsa-miR-186-5p	AC010976.2
hsa-miR-186-5p	RAPGEF4-AS1	hsa-miR-27b-3p	LINC01224	hsa-miR-27b-3p	LINC01567
hsa-miR-25-3p	RAPGEF4-AS1	hsa-miR-146b-5p	RP11-166P13.4	hsa-miR-34a-5p	RP11-171I2.4
hsa-miR-221-3p	RAPGEF4-AS1	hsa-miR-34a-5p	RP5-1071N3.1	hsa-miR-186-5p	RP11-274H2.5
hsa-miR-186-5p	AC012531.25	hsa-miR-148b-3p	PSORS1C3	hsa-miR-25-3p	RP11-274H2.5
hsa-miR-374b-5p	AC012531.25	hsa-miR-378h	CTD-3128G10.6	hsa-miR-374b-5p	RP11-152L20.3
hsa-miR-140-3p	RP11-802E16.3	hsa-miR-378a-3p	CTD-3128G10.6	hsa-miR-34a-5p	RP11-152L20.3
hsa-miR-374b-5p	CTD-2506P8.6	hsa-miR-125b-5p	RP1-67A8.3	hsa-miR-140-3p	GS1-304P7.3
hsa-miR-499a-5p	KB-1208A12.3	hsa-miR-199a-5p	RP4-800J21.3	hsa-miR-140-3p	RP11-661A12.12
hsa-miR-148a-3p	RP11-576D8.4	hsa-miR-186-5p	LEMD1-AS1	hsa-miR-26b-5p	CTA-256D12.11
hsa-miR-148b-3p	RP11-576D8.4	hsa-miR-146b-5p	LEMD1-AS1	hsa-miR-374b-5p	RP11-713N11.6
hsa-miR-221-3p	RP11-576D8.4	hsa-miR-27b-3p	FOXD2-AS1	hsa-miR-143-3p	RP11-480A16.1
hsa-miR-186-5p	AC093690.1	hsa-miR-26b-5p	RP11-588L15.2	hsa-miR-140-3p	RP11-480A16.1
hsa-miR-27b-3p	AC093690.1	hsa-miR-27b-3p	RP11-104O19.4	hsa-miR-186-5p	RP11-399O19.9
hsa-miR-34a-5p	AC093690.1	hsa-miR-34a-5p	LINC00621	hsa-miR-125b-5p	RP1-199J3.7
hsa-miR-148b-3p	KIRREL-IT1	hsa-miR-27b-3p	LINC01562	hsa-miR-199a-5p	LINC01233
hsa-miR-148a-3p	KIRREL-IT1	hsa-miR-27b-3p	RP11-18H21.3	hsa-miR-125b-5p	RP11-301L8.2
hsa-miR-421	C1orf132	hsa-miR-140-3p	CTC-498M16.4	hsa-miR-125b-5p	RP11-165M1.3

hsa-miR-27b-3p	C1orf132	hsa-miR-186-5p	RP11-30K9.4	hsa-miR-186-5p	RP11-1007G5.2
hsa-miR-378a-3p	C1orf132	hsa-miR-27b-3p	RP6-109B7.2	hsa-miR-378a-3p	RP11-1007G5.2
hsa-miR-378h	C1orf132	hsa-miR-26b-5p	RP13-616I3.1	hsa-miR-143-3p	RP11-1007G5.2
hsa-miR-125b-5p	C1orf132	hsa-miR-499a-5p	RP11-362F19.1	hsa-miR-378h	RP11-1007G5.2
hsa-miR-140-3p	C1orf132	hsa-miR-221-3p	RP11-362F19.1	hsa-miR-221-3p	RP11-147L13.8
hsa-miR-34a-5p	C1orf132	hsa-miR-34a-5p	RP11-362F19.1	hsa-miR-146b-5p	RP11-147L13.8
hsa-miR-34a-5p	RP11-554I8.2	hsa-miR-27b-3p	RP11-362F19.1	hsa-miR-26b-5p	RP11-147L13.8
hsa-miR-27b-3p	RP11-9N12.2	hsa-miR-125b-5p	RP11-362F19.1	hsa-miR-374b-5p	RP11-147L13.8
hsa-miR-186-5p	RP11-9N12.2	hsa-miR-146b-5p	RP11-981G7.3	hsa-miR-125b-5p	RP11-478K15.6
hsa-miR-27b-3p	RP11-61E11.1	hsa-miR-378a-3p	RP11-1079K10.3	hsa-miR-27b-3p	RP11-478K15.6
hsa-miR-378h	RP11-61E11.1	hsa-miR-378h	RP11-1079K10.3	hsa-miR-125b-5p	KDM5C-IT1
hsa-miR-378a-3p	RP11-61E11.1	hsa-miR-125b-5p	LINC00838	hsa-miR-143-3p	RP11-768F21.1
hsa-miR-374b-5p	AC025811.3	hsa-miR-186-5p	NPPA-AS1	hsa-miR-143-3p	RP11-116D17.5
hsa-miR-186-5p	AC025811.3	hsa-miR-148a-3p	RP11-265D19.6	hsa-miR-34a-5p	RP1-69D17.4
hsa-miR-186-5p	RP11-438B23.2	hsa-miR-148b-3p	RP11-265D19.6	hsa-miR-125b-5p	RP1-69D17.4
hsa-miR-125b-5p	RP11-438B23.2	hsa-miR-186-5p	RP11-20B24.7	hsa-miR-143-3p	RP4-647C14.2
hsa-miR-421	RP11-438B23.2	hsa-miR-199a-5p	AC079466.1	hsa-miR-125b-5p	RP11-386G11.10
hsa-miR-199a-5p	RP11-438B23.2	hsa-miR-125b-5p	AC079466.1	hsa-miR-221-3p	AC069155.1
hsa-miR-143-3p	RP11-438B23.2	hsa-miR-378a-3p	AC079466.1	hsa-miR-26b-5p	RP4-760C5.3
hsa-miR-199a-5p	CTD-2369P2.8	hsa-miR-378h	AC079466.1	hsa-miR-143-3p	RP4-760C5.3
hsa-miR-143-3p	CTA-992D9.8	hsa-miR-146b-5p	AC079466.1	hsa-miR-378a-3p	RP1-17K7.2
hsa-miR-27b-3p	CTA-992D9.8	hsa-miR-26b-5p	AC079466.1	hsa-miR-378h	RP1-17K7.2
hsa-miR-186-5p	CTA-992D9.8	hsa-miR-34a-5p	AC079466.1	hsa-miR-146b-5p	AC074289.1
hsa-miR-146b-5p	AC000123.4	hsa-miR-148b-3p	AC079466.1	hsa-miR-186-5p	RP11-262I2.2
hsa-miR-140-3p	AC000123.4	hsa-miR-221-3p	AC079466.1	hsa-miR-125b-5p	RP11-400F19.18
hsa-miR-186-5p	RP11-703M24.5	hsa-miR-186-5p	AC079466.1	hsa-miR-148b-3p	RP11-35O15.2
hsa-miR-27b-3p	RP1-45C12.1	hsa-miR-125b-5p	RP11-732A19.9	hsa-miR-186-5p	RP11-631N16.4
hsa-miR-421	AC009784.3	hsa-miR-199a-5p	RP11-478P10.1	hsa-miR-186-5p	RP11-180N14.1

hsa-miR-374b-5p	RP5-921G16.1	hsa-miR-26b-5p	RP11-478P10.1	hsa-miR-186-5p	CTB-133G6.2
hsa-miR-140-3p	RP11-102L12.2	hsa-miR-143-3p	RP11-478P10.1	hsa-miR-186-5p	CTD-2620I22.3
hsa-miR-27b-3p	RP13-735L24.1	hsa-miR-27b-3p	LINC01524	hsa-miR-221-3p	AC073326.3
hsa-miR-186-5p	RP13-735L24.1	hsa-miR-26b-5p	LINC01524	hsa-miR-26b-5p	AC073326.3
hsa-miR-221-3p	RP13-735L24.1	hsa-miR-186-5p	UG0898H09	hsa-miR-146b-5p	SOX2-OT
hsa-miR-199a-5p	RP11-267M23.3	hsa-miR-374b-5p	UG0898H09	hsa-miR-143-3p	SOX2-OT
hsa-miR-199a-5p	RP11-57A1.1	hsa-miR-421	UG0898H09	hsa-miR-199a-5p	SOX2-OT
hsa-miR-378a-3p	RP11-709D24.8	hsa-miR-140-3p	UG0898H09	hsa-miR-27b-3p	SOX2-OT
hsa-miR-378h	RP11-709D24.8	hsa-miR-27b-3p	UG0898H09	hsa-miR-374b-5p	SOX2-OT
hsa-miR-140-3p	AC068492.1	hsa-miR-143-3p	RP11-778J15.1	hsa-miR-186-5p	SOX2-OT
hsa-miR-125b-5p	RP4-591N18.2	hsa-miR-27b-3p	RP1-179N16.6	hsa-miR-421	SOX2-OT
hsa-miR-34a-5p	AC004951.6	hsa-miR-25-3p	LINC00977	hsa-miR-25-3p	SOX2-OT
hsa-miR-125b-5p	AC004951.6	hsa-miR-27b-3p	AC012368.1	hsa-miR-378h	SOX2-OT
hsa-miR-148b-3p	ITCH-IT1	hsa-miR-199a-5p	AC009506.1	hsa-miR-378a-3p	SOX2-OT
hsa-miR-148a-3p	ITCH-IT1	hsa-miR-143-3p	CTD-3222D19.12	hsa-miR-125b-5p	RP11-90M2.5
hsa-miR-186-5p	RP4-742J24.2	hsa-miR-186-5p	CTD-3222D19.12	hsa-miR-143-3p	SLC14A2-AS1
hsa-miR-421	RP11-282K24.3	hsa-miR-34a-5p	AP001630.5	hsa-miR-140-3p	SLC14A2-AS1
hsa-miR-186-5p	RP11-282K24.3	hsa-miR-143-3p	RP11-1018N14.5	hsa-miR-148a-3p	SLC14A2-AS1
hsa-miR-143-3p	RP11-282K24.3	hsa-miR-27b-3p	RP11-1018N14.5	hsa-miR-125b-5p	SLC14A2-AS1
hsa-miR-374b-5p	RP11-282K24.3	hsa-miR-27b-3p	IFT74-AS1	hsa-miR-186-5p	AC005519.4
hsa-miR-374b-5p	RP11-221J22.2	hsa-miR-125b-5p	AP000350.5	hsa-miR-34a-5p	CTA-305I2.1
hsa-miR-148b-3p	RP11-221J22.2	hsa-miR-143-3p	RP11-706O15.1	hsa-miR-143-3p	RP11-250B2.6
hsa-miR-146b-5p	RP11-358B23.5	hsa-miR-27b-3p	AC002306.1	hsa-miR-221-3p	RP11-250B2.6
hsa-miR-374b-5p	RP11-16L21.7	hsa-miR-27b-3p	CTD-2008P7.1	hsa-miR-27b-3p	RP11-714G18.1
hsa-miR-499a-5p	AC074286.1	hsa-miR-34a-5p	RP5-983L19.2	hsa-miR-421	RP11-359K18.4
hsa-miR-27b-3p	AC074286.1	hsa-miR-34a-5p	RP11-923I11.4	hsa-miR-143-3p	RP11-359K18.4
hsa-miR-146b-5p	AC074286.1	hsa-miR-374b-5p	CTC-327F10.5	hsa-miR-199a-5p	RP11-151N17.1
hsa-miR-499a-5p	RP11-53B2.3	hsa-miR-25-3p	CTC-327F10.5	hsa-miR-25-3p	RP11-678G15.1

hsa-miR-26b-5p	RP11-439H8.4	hsa-miR-27b-3p	RP11-19D2.2	hsa-miR-125b-5p	RP11-574K11.29
hsa-miR-27b-3p	RP11-439H8.4	hsa-miR-125b-5p	RP11-19D2.2	hsa-miR-26b-5p	RP11-574K11.29
hsa-miR-125b-5p	RP11-428G5.5	hsa-miR-186-5p	CTD-3138B18.6	hsa-miR-499a-5p	RP11-574K11.29
hsa-miR-186-5p	CTA-276F8.1	hsa-miR-27b-3p	RP11-96A15.1	hsa-miR-27b-3p	RP11-574K11.29
hsa-miR-27b-3p	TMPRSS4-AS1	hsa-miR-140-3p	RP11-529E10.7	hsa-miR-143-3p	BDNF-AS
hsa-miR-140-3p	LINC00347	hsa-miR-143-3p	PLS3-AS1	hsa-miR-26b-5p	BDNF-AS
hsa-miR-199a-5p	LINC00347	hsa-miR-27b-3p	LINC01226	hsa-miR-421	RP11-114H24.6
hsa-miR-374b-5p	LINC00347	hsa-miR-186-5p	CTD-2201E18.5	hsa-miR-499a-5p	RP5-855D21.3
hsa-miR-143-3p	RP11-89N17.3	hsa-miR-27b-3p	ASTN2-AS1	hsa-miR-186-5p	RP5-855D21.3
hsa-miR-26b-5p	RP11-13N13.5	hsa-miR-186-5p	LINC01415	hsa-miR-143-3p	CTB-73N10.1
hsa-miR-374b-5p	RP11-147L13.14	hsa-miR-186-5p	MIR133A1HG	hsa-miR-374b-5p	RP11-466F5.10
hsa-miR-421	RP11-147L13.14	hsa-miR-221-3p	MIR133A1HG	hsa-miR-125b-5p	KDM4A-AS1
hsa-miR-143-3p	RP11-28G8.1	hsa-miR-374b-5p	AC004053.1	hsa-miR-27b-3p	AL133243.3
hsa-miR-27b-3p	RP11-28G8.1	hsa-miR-186-5p	AC004053.1	hsa-miR-143-3p	RP4-635E18.7
hsa-miR-143-3p	RP11-43N5.1	hsa-miR-26b-5p	RP11-151A6.4	hsa-miR-186-5p	LINC01422
hsa-miR-499a-5p	RP11-713M15.1	hsa-miR-421	RP11-151A6.4	hsa-miR-140-3p	LINC01422
hsa-miR-27b-3p	RP11-274H2.3	hsa-miR-146b-5p	RP11-151A6.4	hsa-miR-25-3p	CTD-2278I10.1
hsa-miR-34a-5p	RP11-404O13.1	hsa-miR-25-3p	CTD-3162L10.1	hsa-miR-378a-3p	PRSS51
hsa-miR-499a-5p	CTB-113P19.4	hsa-miR-125b-5p	CTD-3162L10.1	hsa-miR-378h	PRSS51
hsa-miR-148b-3p	PSMD6-AS2	hsa-miR-378h	RP11-297C4.2	hsa-miR-34a-5p	RP5-1042K10.13
hsa-miR-186-5p	RP11-106M7.1	hsa-miR-378a-3p	RP11-297C4.2	hsa-miR-499a-5p	RP5-1042K10.13
hsa-miR-27b-3p	RP11-106M7.1	hsa-miR-374b-5p	RP3-413H6.2	hsa-miR-186-5p	RP11-73M11.3
hsa-miR-499a-5p	RP11-106M7.1	hsa-miR-27b-3p	RP11-452C8.1	hsa-miR-374b-5p	RP11-541P9.3
hsa-miR-148b-3p	RP11-106M7.1	hsa-miR-186-5p	LINC00525	hsa-miR-143-3p	RP5-1027G4.3
hsa-miR-148a-3p	RP11-106M7.1	hsa-miR-26b-5p	CTD-2626G11.2	hsa-miR-34a-5p	LINC00371
hsa-miR-27b-3p	RP11-166B2.8	hsa-miR-221-3p	CTD-2626G11.2	hsa-miR-186-5p	LINC00371
hsa-miR-125b-5p	RNASEH2B-AS1	hsa-miR-27b-3p	RP11-448G15.3	hsa-miR-421	RP13-39P12.3
hsa-miR-140-3p	RNASEH2B-AS1	hsa-miR-148a-3p	RP5-1021I20.5	hsa-miR-148b-3p	RP13-39P12.3

hsa-miR-378h	RNASEH2B-AS1	hsa-miR-148b-3p	RP5-1021I20.5	hsa-miR-148a-3p	RP13-39P12.3
hsa-miR-378a-3p	RNASEH2B-AS1	hsa-miR-186-5p	AC097382.5	hsa-miR-25-3p	RP11-982M15.8
hsa-miR-26b-5p	RP11-817I4.2	hsa-miR-27b-3p	TEX26-AS1	hsa-miR-421	CECR3
hsa-miR-186-5p	RP11-817I4.2	hsa-miR-125b-5p	TEX26-AS1	hsa-miR-25-3p	CECR3
hsa-miR-374b-5p	EPB41L4A-AS1	hsa-miR-27b-3p	RP11-516C1.1	hsa-miR-374b-5p	LINC01330
hsa-miR-499a-5p	EPB41L4A-AS1	hsa-miR-27b-3p	SPACA6P-AS	hsa-miR-125b-5p	LINC01330
hsa-miR-374b-5p	PCGEM1	hsa-miR-148b-3p	RP11-769O8.1	hsa-miR-26b-5p	LINC01330
hsa-miR-26b-5p	PCGEM1	hsa-miR-143-3p	LINC01344	hsa-miR-148b-3p	KIZ-AS1
hsa-miR-143-3p	RP5-884M6.1	hsa-miR-374b-5p	RNF139-AS1	hsa-miR-148a-3p	KIZ-AS1
hsa-miR-146b-5p	RP11-290O12.2	hsa-miR-26b-5p	RNF139-AS1	hsa-miR-186-5p	LINC00161
hsa-miR-125b-5p	LINC00488	hsa-miR-148a-3p	RP11-307C19.2	hsa-miR-27b-3p	LINC00161
hsa-miR-374b-5p	LINC00488	hsa-miR-186-5p	DEPDC1-AS1	hsa-miR-221-3p	RP5-984P4.6
hsa-miR-499a-5p	LINC00488	hsa-miR-146b-5p	EFCAB14-AS1	hsa-miR-199a-5p	XXbac- B135H6.18
hsa-miR-34a-5p	RP11-543D5.1	hsa-miR-27b-3p	RP11-255M2.2	hsa-miR-34a-5p	RP11-273G15.2
hsa-miR-27b-3p	CTD-2265M8.2	hsa-miR-148a-3p	RP11-196H14.2	hsa-miR-148b-3p	RP11-273G15.2
hsa-miR-27b-3p	DLX6-AS1	hsa-miR-148b-3p	RP11-196H14.2	hsa-miR-199a-5p	RP11-273G15.2
hsa-miR-26b-5p	DLX6-AS1	hsa-miR-34a-5p	RP5-858L17.1	hsa-miR-148a-3p	RP11-273G15.2
hsa-miR-186-5p	DLX6-AS1	hsa-miR-221-3p	LINC01093	hsa-miR-34a-5p	CTB-39G8.3
hsa-miR-374b-5p	DLX6-AS1	hsa-miR-34a-5p	CTC-472C24.1	hsa-miR-143-3p	NARF-IT1
hsa-miR-421	DLX6-AS1	hsa-miR-143-3p	RP11-415J8.3	hsa-miR-125b-5p	NARF-IT1
hsa-miR-125b-5p	DLX6-AS1	hsa-miR-199a-5p	RP11-415J8.3	hsa-miR-25-3p	RP11-672L10.6
hsa-miR-143-3p	DLX6-AS1	hsa-miR-146b-5p	LUCAT1	hsa-miR-125b-5p	RP11-672L10.6
hsa-miR-143-3p	CTD-2002H8.2	hsa-miR-421	LUCAT1	hsa-miR-374b-5p	ITPK1-AS1
hsa-miR-378a-3p	CTD-2616J11.16	hsa-miR-199a-5p	LUCAT1	hsa-miR-34a-5p	ITPK1-AS1
hsa-miR-378h	CTD-2616J11.16	hsa-miR-186-5p	LUCAT1	hsa-miR-26b-5p	CTC-471C19.1
hsa-miR-34a-5p	RP11-12A2.3	hsa-miR-378h	YEATS2-AS1	hsa-miR-27b-3p	CTC-471C19.1
hsa-miR-25-3p	RP11-12A2.3	hsa-miR-378a-3p	YEATS2-AS1	hsa-miR-186-5p	CTC-471C19.1

hsa-miR-148b-3p	RP11-127B20.2	hsa-miR-34a-5p	YEATS2-AS1	hsa-miR-199a-5p	RP11-132M7.3
hsa-miR-148a-3p	RP11-127B20.2	hsa-miR-146b-5p	CTD-2501M5.1	hsa-miR-186-5p	RP11-132M7.3
hsa-miR-221-3p	RP11-127B20.2	hsa-miR-34a-5p	CTD-2501M5.1	hsa-miR-421	RP11-549L6.3
hsa-miR-374b-5p	RP11-127B20.2	hsa-miR-199a-5p	AC012613.2	hsa-miR-27b-3p	RP4-778K6.3
hsa-miR-186-5p	LL0XNC01-7P3.1	hsa-miR-34a-5p	AC012613.2	hsa-miR-25-3p	CTC-250I14.3
hsa-miR-125b-5p	LL0XNC01-7P3.1	hsa-miR-143-3p	RP11-166B2.5	hsa-miR-34a-5p	CADM3-AS1
hsa-miR-148a-3p	LL0XNC01-7P3.1	hsa-miR-27b-3p	AC008088.4	hsa-miR-125b-5p	CADM3-AS1
hsa-miR-421	LL0XNC01-7P3.1	hsa-miR-148b-3p	AC008088.4	hsa-miR-378h	RP11-509A17.3
hsa-miR-148b-3p	LL0XNC01-7P3.1	hsa-miR-148a-3p	AC008088.4	hsa-miR-378a-3p	RP11-509A17.3
hsa-miR-34a-5p	RP11-638I2.4	hsa-miR-374b-5p	LINC00969	hsa-miR-199a-5p	RP11-509A17.3
hsa-miR-146b-5p	CTD-2170G1.2	hsa-miR-34a-5p	LINC00969	hsa-miR-125b-5p	RP11-509A17.3
hsa-miR-143-3p	CTD-2170G1.2	hsa-miR-148b-3p	RP11-872J21.3	hsa-miR-25-3p	RP11-509A17.3
hsa-miR-148b-3p	CTD-2170G1.2	hsa-miR-26b-5p	CTD-2085J24.3	hsa-miR-140-3p	AC012314.8
hsa-miR-148a-3p	CTD-2170G1.2	hsa-miR-27b-3p	RP11-351J23.2	hsa-miR-374b-5p	RP11-504P24.9
hsa-miR-34a-5p	CTD-2170G1.2	hsa-miR-34a-5p	RP11-64B16.4	hsa-miR-146b-5p	RP11-1E4.1
hsa-miR-499a-5p	RP11-718O11.1	hsa-miR-421	RP11-981G7.6	hsa-miR-143-3p	RP11-148K1.12
hsa-miR-374b-5p	RP11-415I12.3	hsa-miR-148b-3p	RP11-981G7.6	hsa-miR-374b-5p	RP11-33B1.3
hsa-miR-374b-5p	RP11-300G22.2	hsa-miR-148a-3p	RP11-981G7.6	hsa-miR-421	RP11-278L15.2
hsa-miR-27b-3p	RP11-66B24.4	hsa-miR-125b-5p	CASK-AS1	hsa-miR-186-5p	RP11-278L15.2
hsa-miR-25-3p	RP11-66B24.4	hsa-miR-34a-5p	LINC01285	hsa-miR-374b-5p	AC005614.3
hsa-miR-199a-5p	RP11-66B24.4	hsa-miR-125b-5p	AF196972.9	hsa-miR-186-5p	AC005614.3
hsa-miR-125b-5p	RP11-66B24.4	hsa-miR-146b-5p	RP11-565A3.2	hsa-miR-25-3p	RP11-490B18.6
hsa-miR-186-5p	CTC-523E23.5	hsa-miR-378h	RP11-565A3.2	hsa-miR-221-3p	RP11-55K13.1



hsa-miR-27b-3p	CTC-523E23.5	hsa-miR-378a-3p	RP11-565A3.2	hsa-miR-499a-5p	RP11-28F1.2
hsa-miR-125b-5p	RP11-197N18.7	hsa-miR-27b-3p	RP11-1391J7.1	hsa-miR-140-3p	RP11-317M11.1
hsa-miR-186-5p	CTD-2282P23.2	hsa-miR-140-3p	CTD-2184D3.5	hsa-miR-143-3p	RP11-122C5.3
hsa-miR-199a-5p	AC139100.3	hsa-miR-125b-5p	CTD-2184D3.5	hsa-miR-186-5p	LINC00202-1
hsa-miR-140-3p	AC139100.3	hsa-miR-421	RP11-504P24.8	hsa-miR-378h	LINC00202-1
hsa-miR-374b-5p	CH17-262A2.1	hsa-miR-146b-5p	RP11-504P24.8	hsa-miR-378a-3p	LINC00202-1
hsa-miR-143-3p	RP11-728E14.3	hsa-miR-186-5p	RP11-504P24.8	hsa-miR-125b-5p	RP11-363E6.4
hsa-miR-27b-3p	RP11-728E14.3	hsa-miR-378h	RP11-504P24.8	hsa-miR-421	RP11-667M19.2
hsa-miR-146b-5p	RP11-728E14.3	hsa-miR-140-3p	AKT3-IT1	hsa-miR-125b-5p	RP11-768B22.2
hsa-miR-421	RP11-728E14.3	hsa-miR-199a-5p	RP11-573D15.8	hsa-miR-499a-5p	RP11-768B22.2
hsa-miR-26b-5p	RP11-728E14.3	hsa-miR-143-3p	RP11-573D15.8	hsa-miR-374b-5p	RP11-77E14.2
hsa-miR-374b-5p	RP11-728E14.3	hsa-miR-374b-5p	AC005754.8	hsa-miR-140-3p	RP3-402G11.27
hsa-miR-499a-5p	RP11-728E14.3	hsa-miR-186-5p	AC005754.8	hsa-miR-125b-5p	RP11-181G12.4
hsa-miR-143-3p	RP11-66A2.2	hsa-miR-34a-5p	AC005754.8	hsa-miR-146b-5p	DGCR5
hsa-miR-34a-5p	RP11-856M7.1	hsa-miR-148b-3p	RP11-297C4.1	hsa-miR-186-5p	RP11-50I19.2
hsa-miR-374b-5p	AC090616.2	hsa-miR-378h	RP11-480D4.2	hsa-miR-146b-5p	RP11-326E22.1
hsa-miR-199a-5p	AP000345.1	hsa-miR-378a-3p	RP11-480D4.2	hsa-miR-143-3p	RP1-78B3.1
hsa-miR-140-3p	RP11-344P13.4	hsa-miR-125b-5p	RP11-285G1.2	hsa-miR-374b-5p	RP1-78B3.1
hsa-miR-125b-5p	AC124997.1	hsa-miR-125b-5p	PRR7-AS1	hsa-miR-221-3p	RP11-513G11.2
hsa-miR-143-3p	CTD-2313J17.1	hsa-miR-125b-5p	RP11-709D24.6	hsa-miR-421	RP3-467K16.4
hsa-miR-499a-5p	AC003104.1	hsa-miR-125b-5p	RP11-473C18.3	hsa-miR-34a-5p	RP3-467K16.4
hsa-miR-374b-5p	AC003104.1	hsa-miR-378h	RP11-18H21.1	hsa-miR-499a-5p	RP11-739N10.1
hsa-miR-140-3p	AF127936.3	hsa-miR-143-3p	RP11-18H21.1	hsa-miR-199a-5p	RP11-739N10.1
hsa-miR-27b-3p	UBAC2-AS1	hsa-miR-378a-3p	RP11-18H21.1	hsa-miR-34a-5p	RP11-739N10.1
hsa-miR-27b-3p	RP11-734K21.5	hsa-miR-26b-5p	U82695.9	hsa-miR-148a-3p	RP11-739N10.1
hsa-miR-199a-5p	RPL34-AS1	hsa-miR-27b-3p	RP5-836J3.1	hsa-miR-148b-3p	RP11-739N10.1
hsa-miR-374b-5p	RPL34-AS1	hsa-miR-186-5p	RP11-706O15.3	hsa-miR-421	RP11-474P2.5
hsa-miR-499a-5p	RPL34-AS1	hsa-miR-186-5p	AF131217.1	hsa-miR-146b-5p	RP11-307C12.13

hsa-miR-25-3p	RPL34-AS1	hsa-miR-146b-5p	AF131217.1	hsa-miR-148a-3p	RP11-78I14.1
hsa-miR-186-5p	RP11-660M5.1	hsa-miR-27b-3p	AF131217.1	hsa-miR-148b-3p	RP11-78I14.1
hsa-miR-25-3p	RP1-79C4.1	hsa-miR-499a-5p	AF131217.1	hsa-miR-26b-5p	H1FX-AS1
hsa-miR-221-3p	RP1-79C4.1	hsa-miR-146b-5p	RP11-538D16.2	hsa-miR-143-3p	RP3-325F22.3
hsa-miR-146b-5p	RP1-79C4.1	hsa-miR-421	RP11-173C1.1	hsa-miR-148b-3p	RP11-459I19.1
hsa-miR-146b-5p	RP11-61L19.3	hsa-miR-25-3p	RP11-167J8.3	hsa-miR-148a-3p	RP11-459I19.1
hsa-miR-421	RP11-486G15.2	hsa-miR-143-3p	RP11-553A21.3	hsa-miR-146b-5p	FLJ22763
hsa-miR-25-3p	RP11-717D12.1	hsa-miR-143-3p	MIR4435-1HG	hsa-miR-221-3p	FLJ22763
hsa-miR-146b-5p	LINC01583	hsa-miR-378a-3p	MIR4435-1HG	hsa-miR-199a-5p	FLJ22763
hsa-miR-125b-5p	LINC01583	hsa-miR-378h	MIR4435-1HG	hsa-miR-186-5p	FLJ22763
hsa-miR-27b-3p	GS1-5L10.1	hsa-miR-421	MIR4435-1HG	hsa-miR-143-3p	FAM170B-AS1
hsa-miR-143-3p	AC011752.1	hsa-miR-27b-3p	RP11-266O8.1	hsa-miR-26b-5p	FAM170B-AS1
hsa-miR-27b-3p	RP3-405J10.3	hsa-miR-125b-5p	RP11-266O8.1	hsa-miR-148a-3p	RP11-538I12.3
hsa-miR-148b-3p	RP3-405J10.3	hsa-miR-199a-5p	RP11-266O8.1	hsa-miR-27b-3p	KCNMA1-AS3
hsa-miR-143-3p	RP3-405J10.3	hsa-miR-143-3p	CTD-2609K8.3	hsa-miR-186-5p	RP3-395M20.8
hsa-miR-374b-5p	RP11-174G6.5	hsa-miR-27b-3p	RP4-798A10.7	hsa-miR-378a-3p	RP3-395M20.8
hsa-miR-186-5p	RP11-174G6.5	hsa-miR-374b-5p	RP4-798A10.7	hsa-miR-378h	RP3-395M20.8
hsa-miR-199a-5p	LINC01483	hsa-miR-25-3p	AC019117.2	hsa-miR-125b-5p	RP3-395M20.8
hsa-miR-143-3p	LINC01483	hsa-miR-34a-5p	DIAPH2-AS1	hsa-miR-374b-5p	ACAP2-IT1
hsa-miR-374b-5p	RP11-73M18.6	hsa-miR-146b-5p	CTD-2621I17.6	hsa-miR-186-5p	RP11-189E14.5
hsa-miR-146b-5p	CLIP1-AS1	hsa-miR-27b-3p	CTD-2621I17.6	hsa-miR-26b-5p	MIR181A1HG
hsa-miR-25-3p	RP11-115J16.1	hsa-miR-27b-3p	RP11-284N8.3	hsa-miR-143-3p	RP11-173B14.4
hsa-miR-146b-5p	RP11-115J16.1	hsa-miR-34a-5p	RP11-284N8.3	hsa-miR-25-3p	RP11-167B3.3
hsa-miR-186-5p	CTC-339O9.1	hsa-miR-146b-5p	RP11-284N8.3	hsa-miR-186-5p	AC006159.4
hsa-miR-186-5p	RP11-44F14.2	hsa-miR-26b-5p	RP11-284N8.3	hsa-miR-186-5p	DAPK1-IT1
hsa-miR-378h	RP11-632K5.3	hsa-miR-186-5p	RP11-284N8.3	hsa-miR-25-3p	DAPK1-IT1
hsa-miR-378a-3p	RP11-632K5.3	hsa-miR-27b-3p	AC114812.8	hsa-miR-27b-3p	RP11-356O9.2
hsa-miR-186-5p	CTB-176F20.3	hsa-miR-26b-5p	AC091153.4	hsa-miR-186-5p	RP11-356O9.2

hsa-miR-421	CTB-176F20.3	hsa-miR-499a-5p	RP11-95G17.2	hsa-miR-421	RP11-513G19.1
hsa-miR-26b-5p	RP3-355L5.4	hsa-miR-26b-5p	CTB-46B19.2	hsa-miR-26b-5p	RP11-256L6.3
hsa-miR-27b-3p	CTB-167B5.1	hsa-miR-374b-5p	AIRN	hsa-miR-148a-3p	HOTTIP
hsa-miR-146b-5p	RP11-370B11.3	hsa-miR-186-5p	RP11-680G24.5	hsa-miR-148b-3p	HOTTIP
hsa-miR-146b-5p	CTD-2540L5.6	hsa-miR-186-5p	XIST	hsa-miR-143-3p	HOTTIP
hsa-miR-34a-5p	RP11-210M15.2	hsa-miR-374b-5p	XIST	hsa-miR-125b-5p	RP11-77H9.2
hsa-miR-148b-3p	RP11-311F12.1	hsa-miR-499a-5p	XIST	hsa-miR-125b-5p	C1RL-AS1
hsa-miR-148a-3p	RP11-311F12.1	hsa-miR-421	XIST	hsa-miR-146b-5p	AC008269.2
hsa-miR-34a-5p	RP11-311F12.1	hsa-miR-34a-5p	XIST	hsa-miR-378a-3p	CTD-2528A14.3
hsa-miR-125b-5p	RP11-311F12.1	hsa-miR-140-3p	XIST	hsa-miR-378h	CTD-2528A14.3
hsa-miR-186-5p	RP11-474D1.3	hsa-miR-25-3p	XIST	hsa-miR-125b-5p	RP11-20D14.6
hsa-miR-125b-5p	RP11-474D1.3	hsa-miR-27b-3p	XIST	hsa-miR-186-5p	RP11-20D14.6
hsa-miR-27b-3p	RP11-474D1.3	hsa-miR-146b-5p	XIST	hsa-miR-25-3p	RP11-20D14.6
hsa-miR-25-3p	RP11-90P5.5	hsa-miR-148a-3p	XIST	hsa-miR-199a-5p	RP11-20D14.6
hsa-miR-186-5p	RP11-142O6.1	hsa-miR-378a-3p	CTD-2554C21.2	hsa-miR-27b-3p	RP11-290F5.2
hsa-miR-221-3p	RP11-142O6.1	hsa-miR-378h	CTD-2554C21.2	hsa-miR-143-3p	LINC00298
hsa-miR-499a-5p	RP11-142O6.1	hsa-miR-125b-5p	RP11-430C7.5	hsa-miR-27b-3p	LINC00298
hsa-miR-27b-3p	RP11-45A17.2	hsa-miR-34a-5p	RP11-10L7.1	hsa-miR-143-3p	AC006460.2
hsa-miR-26b-5p	AC007365.1	hsa-miR-26b-5p	RP11-10L7.1	hsa-miR-27b-3p	RP11-15I11.3
hsa-miR-199a-5p	AC007365.1	hsa-miR-140-3p	RP11-389O22.1	hsa-miR-26b-5p	DNAJC3-AS1
hsa-miR-146b-5p	COL4A2-AS1	hsa-miR-143-3p	SH3BP5-AS1	hsa-miR-125b-5p	DNAJC3-AS1
hsa-miR-199a-5p	RP11-53B2.2	hsa-miR-25-3p	RP11-11N9.4	hsa-miR-140-3p	DNAJC3-AS1
hsa-miR-143-3p	KB-1674E1.1	hsa-miR-146b-5p	CTD-2143L24.1	hsa-miR-34a-5p	RP11-247I13.11
hsa-miR-374b-5p	KB-1674E1.1	hsa-miR-221-3p	CTD-2143L24.1	hsa-miR-499a-5p	CTD-3116E22.8
hsa-miR-186-5p	KB-1674E1.1	hsa-miR-374b-5p	RP11-554D15.1	hsa-miR-140-3p	CTD-3116E22.8
hsa-miR-26b-5p	DPH6-AS1	hsa-miR-421	RP11-46E17.8	hsa-miR-374b-5p	CTD-3116E22.8
hsa-miR-27b-3p	DPH6-AS1	hsa-miR-27b-3p	RP11-46E17.8	hsa-miR-186-5p	RP11-1060J15.9
hsa-miR-140-3p	DPH6-AS1	hsa-miR-378a-3p	RP11-46E17.8	hsa-miR-186-5p	AC015971.2

hsa-miR-26b-5p	LINC00427	hsa-miR-378h	RP11-46E17.8	hsa-miR-27b-3p	C14orf132
hsa-miR-186-5p	ENTPD3-AS1	hsa-miR-199a-5p	RP11-46E17.8	hsa-miR-186-5p	C14orf132
hsa-miR-148a-3p	EDRF1-AS1	hsa-miR-186-5p	RP11-46E17.8	hsa-miR-34a-5p	RP11-744I24.3
hsa-miR-148b-3p	EDRF1-AS1	hsa-miR-27b-3p	RP4-569D19.8	hsa-miR-26b-5p	AP000230.1
hsa-miR-374b-5p	AC105760.3	hsa-miR-27b-3p	RP11-95O2.5	hsa-miR-186-5p	AP000230.1
hsa-miR-199a-5p	RP11-2O17.2	hsa-miR-146b-5p	RP11-95O2.5	hsa-miR-140-3p	LINC01398
hsa-miR-143-3p	RP11-661C3.2	hsa-miR-374b-5p	RP11-258C19.7	hsa-miR-143-3p	LINC01337
hsa-miR-26b-5p	CTD-3195I5.3	hsa-miR-140-3p	LINC01585	hsa-miR-34a-5p	RP11-197K3.1
hsa-miR-125b-5p	CTD-3195I5.3	hsa-miR-125b-5p	AC018816.3	hsa-miR-140-3p	AC011893.3
hsa-miR-140-3p	RP11-145M4.2	hsa-miR-374b-5p	RP11-268P4.6	hsa-miR-125b-5p	C1orf147
hsa-miR-125b-5p	AC007966.1	hsa-miR-26b-5p	ITPKB-IT1	hsa-miR-140-3p	CDC42-IT1
hsa-miR-374b-5p	RP5-1092A3.4	hsa-miR-199a-5p	RP11-386J22.3	hsa-miR-186-5p	CDC42-IT1
hsa-miR-186-5p	RP11-626G11.4	hsa-miR-125b-5p	RP11-386J22.3	hsa-miR-146b-5p	LINC01094
hsa-miR-186-5p	RP3-394A18.1	hsa-miR-186-5p	RP11-386J22.3	hsa-miR-221-3p	KB-1507C5.3
hsa-miR-34a-5p	RP3-394A18.1	hsa-miR-140-3p	RP11-386J22.3	hsa-miR-125b-5p	RP11-348J12.2
hsa-miR-26b-5p	RP3-394A18.1	hsa-miR-378h	AC012370.3	hsa-miR-125b-5p	RP11-421P23.2
hsa-miR-143-3p	RP3-394A18.1	hsa-miR-378a-3p	AC012370.3	hsa-miR-499a-5p	RP11-474G23.3
hsa-miR-148a-3p	RP3-394A18.1	hsa-miR-221-3p	AC012370.3	hsa-miR-140-3p	SLC6A1-AS1
hsa-miR-199a-5p	RP3-394A18.1	hsa-miR-26b-5p	RP11-554A11.4	hsa-miR-125b-5p	RP11-640N11.2
hsa-miR-148b-3p	RP3-394A18.1	hsa-miR-421	RP11-554A11.4	hsa-miR-143-3p	RP11-640N11.2
hsa-miR-27b-3p	RP3-394A18.1	hsa-miR-499a-5p	RP3-368A4.6	hsa-miR-186-5p	RP11-277A4.4
hsa-miR-25-3p	RP3-394A18.1	hsa-miR-374b-5p	RP3-368A4.6	hsa-miR-143-3p	AC009120.5
hsa-miR-374b-5p	RP3-394A18.1	hsa-miR-421	RP3-368A4.6	hsa-miR-34a-5p	AC009120.5
hsa-miR-378h	RP3-394A18.1	hsa-miR-186-5p	RP3-368A4.6	hsa-miR-26b-5p	PRKCA-AS1
hsa-miR-146b-5p	RP3-394A18.1	hsa-miR-27b-3p	RP3-368A4.6	hsa-miR-186-5p	PRKCA-AS1
hsa-miR-125b-5p	RP3-394A18.1	hsa-miR-143-3p	LINC01447	hsa-miR-374b-5p	RP11-493E12.2
hsa-miR-221-3p	RP3-394A18.1	hsa-miR-125b-5p	LINC01447	hsa-miR-186-5p	CTC-506B8.1
hsa-miR-378a-3p	RP3-394A18.1	hsa-miR-34a-5p	AC087501.1	hsa-miR-143-3p	SSBP3-AS1

hsa-miR-499a-5p	RP3-394A18.1	hsa-miR-378h	RP11-22A3.2	hsa-miR-27b-3p	AP000797.4
hsa-miR-378h	RP11-534L20.5	hsa-miR-26b-5p	RP11-22A3.2	hsa-miR-378a-3p	CTD-2528A14.5
hsa-miR-378a-3p	RP11-534L20.5	hsa-miR-378a-3p	RP11-22A3.2	hsa-miR-378h	CTD-2528A14.5
hsa-miR-27b-3p	RP1-63G5.7	hsa-miR-221-3p	AC000120.7	hsa-miR-421	LINC00862
hsa-miR-34a-5p	RP11-285J16.1	hsa-miR-26b-5p	AC000120.7	hsa-miR-143-3p	CCDC144NL-AS1
hsa-miR-186-5p	RP11-285J16.1	hsa-miR-143-3p	CTB-12O2.1	hsa-miR-26b-5p	CCDC144NL-AS1
hsa-miR-148b-3p	MORF4L2-AS1	hsa-miR-378a-3p	CTB-12O2.1	hsa-miR-27b-3p	CCDC144NL-AS1
hsa-miR-148a-3p	MORF4L2-AS1	hsa-miR-378h	CTB-12O2.1	hsa-miR-186-5p	CCDC144NL-AS1
hsa-miR-374b-5p	RP11-52A20.2	hsa-miR-186-5p	BX255923.3	hsa-miR-34a-5p	CCDC144NL-AS1
hsa-miR-499a-5p	AC009501.4	hsa-miR-140-3p	XXbac-BPGBPG55C20.1	hsa-miR-140-3p	FSIP2-AS1
hsa-miR-499a-5p	MALAT1	hsa-miR-27b-3p	RP11-799B12.4	hsa-miR-34a-5p	LINC00900
hsa-miR-26b-5p	MALAT1	hsa-miR-148a-3p	RP11-798G7.8	hsa-miR-148a-3p	AC092168.2
hsa-miR-143-3p	MALAT1	hsa-miR-148b-3p	RP11-798G7.8	hsa-miR-421	SLC8A1-AS1
hsa-miR-186-5p	MALAT1	hsa-miR-499a-5p	RP11-798G7.8	hsa-miR-26b-5p	SLC8A1-AS1
hsa-miR-146b-5p	AC004485.3	hsa-miR-378a-3p	RP11-88G17.6	hsa-miR-27b-3p	SLC8A1-AS1
hsa-miR-186-5p	DLEU2	hsa-miR-378h	RP11-88G17.6	hsa-miR-27b-3p	RP1-300G12.2
hsa-miR-374b-5p	RP11-234K19.1	hsa-miR-186-5p	RP11-20J15.3	hsa-miR-143-3p	RP11-13P5.2
hsa-miR-199a-5p	RP11-415D17.4	hsa-miR-26b-5p	RP11-20J15.3	hsa-miR-146b-5p	RP11-328C8.4
hsa-miR-34a-5p	RP11-818F20.5	hsa-miR-125b-5p	RP11-20J15.3	hsa-miR-199a-5p	AC005042.4
hsa-miR-378a-3p	CTA-398F10.2	hsa-miR-34a-5p	RP11-496I9.1	hsa-miR-186-5p	RP11-70D24.4
hsa-miR-378h	CTA-398F10.2	hsa-miR-26b-5p	RP11-325L12.7	hsa-miR-186-5p	RP11-379B18.6
hsa-miR-125b-5p	CTD-2616J11.3	hsa-miR-140-3p	RP1-10C16.1	hsa-miR-125b-5p	RP11-23N2.4

hsa-miR-146b-5p	RP11-321G12.1	hsa-miR-125b-5p	AP000289.6	hsa-miR-27b-3p	LINC01085
hsa-miR-125b-5p	PLCB2-AS1	hsa-miR-27b-3p	AC007879.2	hsa-miR-143-3p	LINC01085
hsa-miR-186-5p	RP11-377D9.3	hsa-miR-378h	CTD-3080P12.3	hsa-miR-186-5p	RP11-932O9.9
hsa-miR-27b-3p	AC093642.3	hsa-miR-378a-3p	CTD-3080P12.3	hsa-miR-421	RP11-946P6.6
hsa-miR-26b-5p	AC093642.3	hsa-miR-421	CTD-3080P12.3	hsa-miR-143-3p	RP11-742B18.1
hsa-miR-146b-5p	AFAP1-AS1	hsa-miR-146b-5p	AC137932.6	hsa-miR-27b-3p	RP11-742B18.1
hsa-miR-421	AFAP1-AS1	hsa-miR-499a-5p	RP1-225E12.2	hsa-miR-374b-5p	KCNMB2-AS1
hsa-miR-186-5p	AFAP1-AS1	hsa-miR-125b-5p	RP11-70J12.1	hsa-miR-27b-3p	KCNMB2-AS1
hsa-miR-378a-3p	RP11-676J12.4	hsa-miR-421	RP11-166N17.1	hsa-miR-26b-5p	RP11-295H24.5
hsa-miR-378h	RP11-676J12.4	hsa-miR-146b-5p	RP11-13N12.1	hsa-miR-378h	RP11-496N12.6
hsa-miR-221-3p	LINC01215	hsa-miR-148b-3p	RP11-141C7.4	hsa-miR-378a-3p	RP11-496N12.6
hsa-miR-27b-3p	LINC01215	hsa-miR-148a-3p	RP11-141C7.4	hsa-miR-146b-5p	RP11-214O1.3
hsa-miR-34a-5p	AC092535.3	hsa-miR-146b-5p	RP11-141C7.4	hsa-miR-25-3p	AC007308.6
hsa-miR-140-3p	RP13-578N3.3	hsa-miR-25-3p	RP11-141C7.4	hsa-miR-125b-5p	AC007308.6
hsa-miR-27b-3p	RP11-221N13.3	hsa-miR-186-5p	RP11-141C7.4	hsa-miR-186-5p	RABGAP1L-IT1
hsa-miR-125b-5p	RP11-221N13.3	hsa-miR-143-3p	SND1-IT1	hsa-miR-125b-5p	RP11-247A12.7
hsa-miR-186-5p	LINC01555	hsa-miR-421	AC006145.4	hsa-miR-27b-3p	RP11-486O13.4
hsa-miR-25-3p	RP5-956O18.2	hsa-miR-499a-5p	AC006145.4	hsa-miR-26b-5p	RP11-246A10.1
hsa-miR-421	RP11-30L3.2	hsa-miR-499a-5p	RP11-727F15.13	hsa-miR-146b-5p	GS1-279B7.1
hsa-miR-146b-5p	RP5-933B4.1	hsa-miR-374b-5p	RP11-286E11.1	hsa-miR-146b-5p	RP11-324E6.10
hsa-miR-143-3p	AC016683.5	hsa-miR-140-3p	RP11-351J23.1	hsa-miR-146b-5p	GRM5-AS1
hsa-miR-26b-5p	RP11-297N6.4	hsa-miR-221-3p	RP11-351J23.1	hsa-miR-148b-3p	PAQR9-AS1
hsa-miR-140-3p	RP11-64D24.2	hsa-miR-125b-5p	RP11-114F10.3	hsa-miR-378h	PAQR9-AS1
hsa-miR-143-3p	RP1-35C21.2	hsa-miR-34a-5p	AC006116.19	hsa-miR-378a-3p	PAQR9-AS1
hsa-miR-125b-5p	MIR497HG	hsa-miR-34a-5p	LAMA5-AS1	hsa-miR-199a-5p	PAQR9-AS1
hsa-miR-186-5p	RP11-214K3.20	hsa-miR-186-5p	LINC00540	hsa-miR-378h	LINC00505
hsa-miR-499a-5p	RP11-411B10.2	hsa-miR-374b-5p	RP11-111M22.4	hsa-miR-378a-3p	LINC00505
hsa-miR-374b-5p	RP11-411B10.2	hsa-miR-34a-5p	TNK2-AS1	hsa-miR-27b-3p	RP11-354E11.2

hsa-miR-125b-5p	SRRM2-AS1	hsa-miR-148b-3p	LINC00894	hsa-miR-499a-5p	RP11-354E11.2
hsa-miR-148b-3p	RP11-548L20.1	hsa-miR-148a-3p	LINC00894	hsa-miR-34a-5p	CTD-2600O9.2
hsa-miR-148a-3p	RP11-548L20.1	hsa-miR-374b-5p	RP11-645C24.5	hsa-miR-148b-3p	RP11-785G17.1
hsa-miR-186-5p	RP11-212I21.4	hsa-miR-26b-5p	RP11-433C9.2	hsa-miR-26b-5p	RP11-159H10.3
hsa-miR-374b-5p	RP11-212I21.4	hsa-miR-499a-5p	RP11-674P19.2	hsa-miR-143-3p	RP11-449J21.5
hsa-miR-125b-5p	LINC00843	hsa-miR-26b-5p	RP11-674P19.2	hsa-miR-26b-5p	DLEU7-AS1
hsa-miR-26b-5p	LINC00843	hsa-miR-25-3p	RP11-674P19.2	hsa-miR-140-3p	LINC00486
hsa-miR-499a-5p	RP11-57H12.5	hsa-miR-140-3p	RP11-674P19.2	hsa-miR-148a-3p	LINC00486
hsa-miR-125b-5p	RP11-260E18.1	hsa-miR-374b-5p	RP11-674P19.2	hsa-miR-26b-5p	ZNF793-AS1
hsa-miR-186-5p	RP11-1D12.2	hsa-miR-199a-5p	RP11-758M4.4	hsa-miR-148b-3p	LINC01539
hsa-miR-199a-5p	RP11-480C16.1	hsa-miR-374b-5p	RP11-758M4.4	hsa-miR-148a-3p	LINC01539
hsa-miR-27b-3p	RP11-480C16.1	hsa-miR-34a-5p	RP1-122P22.4	hsa-miR-186-5p	LINC01539
hsa-miR-374b-5p	RP11-480C16.1	hsa-miR-34a-5p	RP11-615I2.6	hsa-miR-143-3p	LINC01539
hsa-miR-374b-5p	RP11-932O9.10	hsa-miR-125b-5p	AC004448.5	hsa-miR-148a-3p	RP11-141O11.2
hsa-miR-146b-5p	RP11-932O9.10	hsa-miR-143-3p	AC004448.5	hsa-miR-148b-3p	RP11-141O11.2
hsa-miR-186-5p	AP001628.7	hsa-miR-34a-5p	AC004448.5	hsa-miR-34a-5p	RP4-539M6.14
hsa-miR-27b-3p	RP11-10C8.2	hsa-miR-378h	AC004448.5	hsa-miR-146b-5p	AC015849.16
hsa-miR-199a-5p	RP1-5O6.4	hsa-miR-378a-3p	AC004448.5	hsa-miR-378h	AC015849.16
hsa-miR-146b-5p	MIR143HG	hsa-miR-26b-5p	MEG9	hsa-miR-378a-3p	AC015849.16
hsa-miR-186-5p	RP11-488L18.10	hsa-miR-186-5p	KB-1980E6.3	hsa-miR-140-3p	AC015849.16
hsa-miR-146b-5p	LINC00861	hsa-miR-374b-5p	KB-1980E6.3	hsa-miR-186-5p	RP11-578F21.6
hsa-miR-143-3p	LINC00861	hsa-miR-140-3p	RP11-370A5.1	hsa-miR-374b-5p	RP11-578F21.6
hsa-miR-186-5p	LINC00861	hsa-miR-143-3p	RP1-144F13.3	hsa-miR-34a-5p	UBE2Q1-AS1
hsa-miR-374b-5p	LINC00861	hsa-miR-186-5p	AP000654.4	hsa-miR-148a-3p	UBE2Q1-AS1
hsa-miR-25-3p	LINC00861	hsa-miR-27b-3p	LINC01267	hsa-miR-27b-3p	LINC00475
hsa-miR-143-3p	RP11-10C24.1	hsa-miR-143-3p	RP11-356M20.3	hsa-miR-125b-5p	LINC00475
hsa-miR-125b-5p	LL22NC03-102D1.18	hsa-miR-143-3p	RP11-351M8.1	hsa-miR-140-3p	LINC00475

hsa-miR-186-5p	RP11-43F13.3	hsa-miR-125b-5p	RP11-351M8.1	hsa-miR-374b-5p	LINC00475
hsa-miR-148a-3p	AC007182.6	hsa-miR-186-5p	LINC00271	hsa-miR-421	LINC00475
hsa-miR-148b-3p	AC007182.6	hsa-miR-27b-3p	RP11-809O17.1	hsa-miR-34a-5p	LINC00475
hsa-miR-374b-5p	RP11-243A14.1	hsa-miR-125b-5p	RP11-809O17.1	hsa-miR-27b-3p	LARS2-AS1
hsa-miR-421	RP11-173A16.2	hsa-miR-125b-5p	RP11-503C24.6	hsa-miR-140-3p	RASGRF2-AS1
hsa-miR-140-3p	RP11-146I2.1	hsa-miR-26b-5p	RP11-408O19.5	hsa-miR-143-3p	RP11-508N12.2
hsa-miR-148a-3p	CTC-265F19.3	hsa-miR-143-3p	LINC01013	hsa-miR-125b-5p	RP11-508N12.2
hsa-miR-186-5p	CRYM-AS1	hsa-miR-27b-3p	LINC01013	hsa-miR-143-3p	AC107081.5
hsa-miR-27b-3p	CRYM-AS1	hsa-miR-143-3p	AC005537.2	hsa-miR-25-3p	LINC00563
hsa-miR-140-3p	RP11-474P2.6	hsa-miR-374b-5p	AC005537.2	hsa-miR-378h	CTB-91J4.1
hsa-miR-26b-5p	RP11-474P2.6	hsa-miR-374b-5p	AC010091.1	hsa-miR-378a-3p	CTB-91J4.1
hsa-miR-378a-3p	RP11-474P2.6	hsa-miR-143-3p	RP11-108M9.3	hsa-miR-186-5p	CTA-292E10.9
hsa-miR-378h	RP11-474P2.6	hsa-miR-125b-5p	RP11-108M9.3	hsa-miR-146b-5p	CTA-292E10.9
hsa-miR-374b-5p	RP11-474P2.6	hsa-miR-143-3p	CTD-2024I7.13	hsa-miR-374b-5p	CTA-292E10.9
hsa-miR-186-5p	RP11-474P2.6	hsa-miR-374b-5p	CTD-2024I7.13	hsa-miR-378h	CTA-292E10.9
hsa-miR-34a-5p	RP11-6I2.3	hsa-miR-499a-5p	RP11-344N10.5	hsa-miR-378a-3p	CTA-292E10.9
hsa-miR-421	RP11-6I2.3	hsa-miR-186-5p	RP11-344N10.5	hsa-miR-26b-5p	CTA-292E10.9
hsa-miR-140-3p	RP11-148B6.1	hsa-miR-374b-5p	TRPC5OS	hsa-miR-499a-5p	CTA-292E10.9
hsa-miR-27b-3p	RP11-473M20.9	hsa-miR-34a-5p	RP11-456H18.2	hsa-miR-143-3p	CTA-292E10.9
hsa-miR-125b-5p	RP5-1184F4.5	hsa-miR-143-3p	LINC00856	hsa-miR-25-3p	CTA-292E10.9
hsa-miR-26b-5p	RP5-1184F4.5	hsa-miR-378a-3p	LINC00856	hsa-miR-221-3p	CTA-292E10.9
hsa-miR-499a-5p	CTD-2341M24.1	hsa-miR-26b-5p	AC005082.12	hsa-miR-199a-5p	CTA-292E10.9
hsa-miR-143-3p	LINC01206	hsa-miR-199a-5p	AP002954.4	hsa-miR-140-3p	CTA-292E10.9
hsa-miR-140-3p	LINC01206	hsa-miR-148b-3p	AP002954.4	hsa-miR-499a-5p	ADAM20P1
hsa-miR-27b-3p	LINC01206	hsa-miR-378a-3p	TPTEP1	hsa-miR-378a-3p	RP5-1028K7.2
hsa-miR-146b-5p	LINC01206	hsa-miR-378h	TPTEP1	hsa-miR-378h	RP5-1028K7.2
hsa-miR-186-5p	LINC01206	hsa-miR-199a-5p	TPTEP1	hsa-miR-186-5p	RP11-445L13__B.3



hsa-miR-199a-5p	LINC01206	hsa-miR-143-3p	TPTEP1	hsa-miR-125b-5p	RP11-356J5.13
hsa-miR-186-5p	RP11-230F18.5	hsa-miR-374b-5p	TPTEP1	hsa-miR-34a-5p	RP11-356J5.13
hsa-miR-125b-5p	ZNF436-AS1	hsa-miR-146b-5p	TPTEP1	hsa-miR-27b-3p	RP11-90B9.3
hsa-miR-199a-5p	ZNF436-AS1	hsa-miR-421	TPTEP1	hsa-miR-140-3p	AC018890.6
hsa-miR-186-5p	RP11-1078H9.5	hsa-miR-27b-3p	SEMA6A-AS1	hsa-miR-143-3p	RP11-57H14.4
hsa-miR-125b-5p	CTA-246H3.12	hsa-miR-148a-3p	SEMA6A-AS1	hsa-miR-146b-5p	RP11-145P16.3
hsa-miR-140-3p	CTA-246H3.12	hsa-miR-146b-5p	DARS-AS1	hsa-miR-125b-5p	RP11-758H9.2
hsa-miR-421	CTA-246H3.12	hsa-miR-25-3p	DARS-AS1	hsa-miR-143-3p	RP11-863P13.3
hsa-miR-34a-5p	RP11-476D10.1	hsa-miR-140-3p	DARS-AS1	hsa-miR-26b-5p	KCNMA1-AS1
hsa-miR-27b-3p	ZBTB20-AS1	hsa-miR-186-5p	DARS-AS1	hsa-miR-34a-5p	KCNMA1-AS1
hsa-miR-140-3p	RP11-422J15.1	hsa-miR-374b-5p	DARS-AS1	hsa-miR-186-5p	RP11-1C8.5
hsa-miR-186-5p	RP11-1060G2.2	hsa-miR-143-3p	DARS-AS1	hsa-miR-143-3p	RP11-1C8.5
hsa-miR-26b-5p	DOCK4-AS1	hsa-miR-27b-3p	RP11-103B5.4	hsa-miR-148b-3p	RP11-274B21.9
hsa-miR-374b-5p	DOCK4-AS1	hsa-miR-140-3p	RP1-90G24.11	hsa-miR-148a-3p	RP11-274B21.9
hsa-miR-34a-5p	LINC00384	hsa-miR-378a-3p	AC005281.2	hsa-miR-374b-5p	RP11-274B21.9
hsa-miR-378h	LINC00384	hsa-miR-378h	AC005281.2	hsa-miR-146b-5p	RP1-134E15.3
hsa-miR-25-3p	LINC00384	hsa-miR-499a-5p	AF131215.4	hsa-miR-125b-5p	RP11-700H6.2
hsa-miR-378a-3p	LINC00384	hsa-miR-186-5p	AF131215.4	hsa-miR-140-3p	USP46-AS1
hsa-miR-374b-5p	AC005550.3	hsa-miR-221-3p	AF131215.4	hsa-miR-27b-3p	CTC-360G5.9
hsa-miR-143-3p	AC090587.2	hsa-miR-421	FGD5-AS1	hsa-miR-125b-5p	VWA8-AS1
hsa-miR-421	RP3-461P17.10	hsa-miR-421	RP11-305O6.3	hsa-miR-186-5p	RP11-16C1.2
hsa-miR-140-3p	RP11-65J3.15	hsa-miR-146b-5p	RP11-70D24.3	hsa-miR-186-5p	RP1-265C24.8
hsa-miR-143-3p	RP1-90G24.6	hsa-miR-27b-3p	RP11-886P16.6	hsa-miR-374b-5p	RP1-265C24.8
hsa-miR-186-5p	RP11-235G24.1	hsa-miR-499a-5p	RP5-855D21.2	hsa-miR-143-3p	AC022819.3
hsa-miR-143-3p	RP11-809C18.3	hsa-miR-143-3p	CTD-3051D23.4	hsa-miR-143-3p	VIPR1-AS1
hsa-miR-27b-3p	RP11-406H23.2	hsa-miR-34a-5p	RP11-359G22.2	hsa-miR-125b-5p	RP5-1142A6.8
hsa-miR-378a-3p	RP1-213J1P__B.1	hsa-miR-140-3p	RP11-186N15.3	hsa-miR-143-3p	RP11-138I17.1
hsa-miR-378h	RP1-213J1P__B.1	hsa-miR-421	RP11-376M2.2	hsa-miR-34a-5p	LINC00272

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hsa-miR-421	LINC00645	hsa-miR-378h	ANKRD10-IT1
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**Table S6.** Core genes obtained by cytoHubba's five methods.

<b>Name</b>	<b>BC</b>	<b>Clo</b>	<b>Degree</b>	<b>EPC</b>	<b>RAD</b>
<i>KLC2_16990_AP</i>	809.31	57.25	2	40.86	4.17
<i>KLC2_16992_RI</i>	809.31	57.25	2	38.94	4.17
<i>ABAT_33905_AA</i>	3345.61	58.25	2	39.10	4.23
<i>hsa-miR-125b-5p</i>	13604.63	85.67	55	55.98	4.83
<i>hsa-miR-148a-3p</i>	5927.85	63.68	27	51.18	4.12
<i>hsa-miR-25-3p</i>	5095.70	61.67	19	47.40	4.34
<i>hsa-miR-499a-5p</i>	6582.81	64.35	28	43.62	4.13
<i>RP6-159A1.4</i>	809.31	57.25	2	41.15	4.17
<i>LL0XNC01-7P3.1</i>	809.31	57.25	2	41.01	4.17
<i>CTD-3162L10.1</i>	1594.77	56	2	40.88	4.10
<i>AC004448.5</i>	2042.34	57.5	2	38.05	4.19
TOP 15	809.31	50.83	2	36.761	3.84

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**Table S7.** Correlation between *ABAT* methylation probes and *ABAT\_33905\_AP* expression in KIRC.

Methylation probe	Cor	P-value
cg02564313	-0.07523	0.165739
cg16586594	0.061454	0.25775
cg01221157	0.02398	0.659032
cg07439546	-0.04176	0.442113
cg00220102	0.062111	0.25269
cg16704802	-0.10655	0.049294
cg22217807	-0.12534	0.020605
cg03389720	0.094953	0.079956
cg08241330	0.063134	0.244938
cg07740911	-0.01757	0.746525
cg04332619	0.045426	0.403043
cg05372963	0.018267	0.736787
cg09489090	-0.00927	0.864564
cg10292855	0.028503	0.599919
cg26915924	0.044824	0.40931
cg07431888	-0.01913	0.724844
cg07336964	-0.04526	0.404789
cg26662674	0.054508	0.315567
cg20587543	-0.07961	0.142366
cg08877512	0.058399	0.282207
cg03441945	0.076003	0.161405
cg01881182	0.034771	0.522226
cg06604249	-0.06997	0.19743
cg05007180	-0.04022	0.459183
cg03698956	-0.03438	0.526938
cg03500056	0.022528	0.678488

cg08834902	0.067387	0.214525
cg00231389	0.062271	0.251467
cg26778345	0.073246	0.177199
cg03142071	-0.08381	0.122416
cg03718620	-0.05242	0.334511
cg15890111	0.016985	0.754642