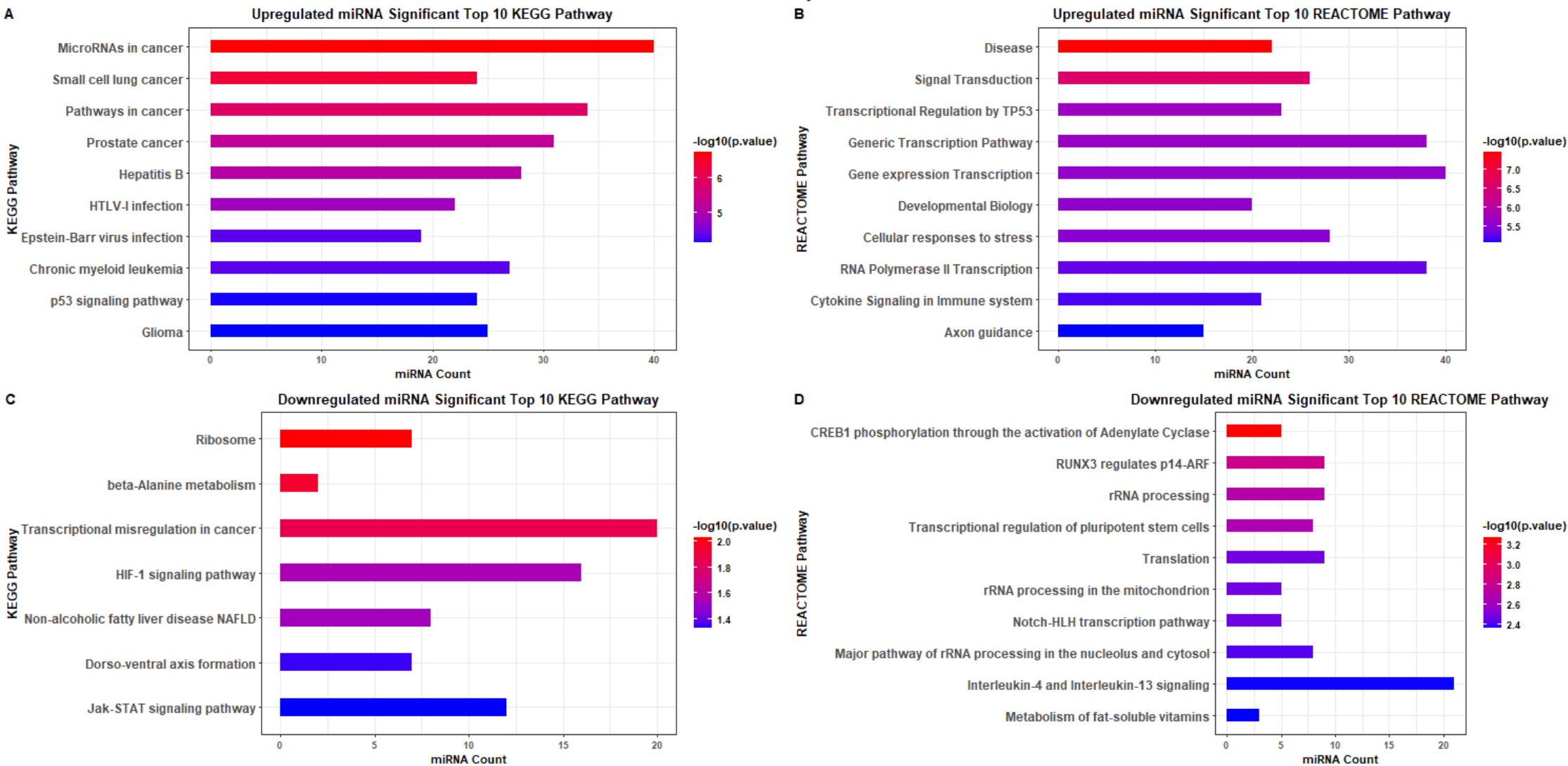
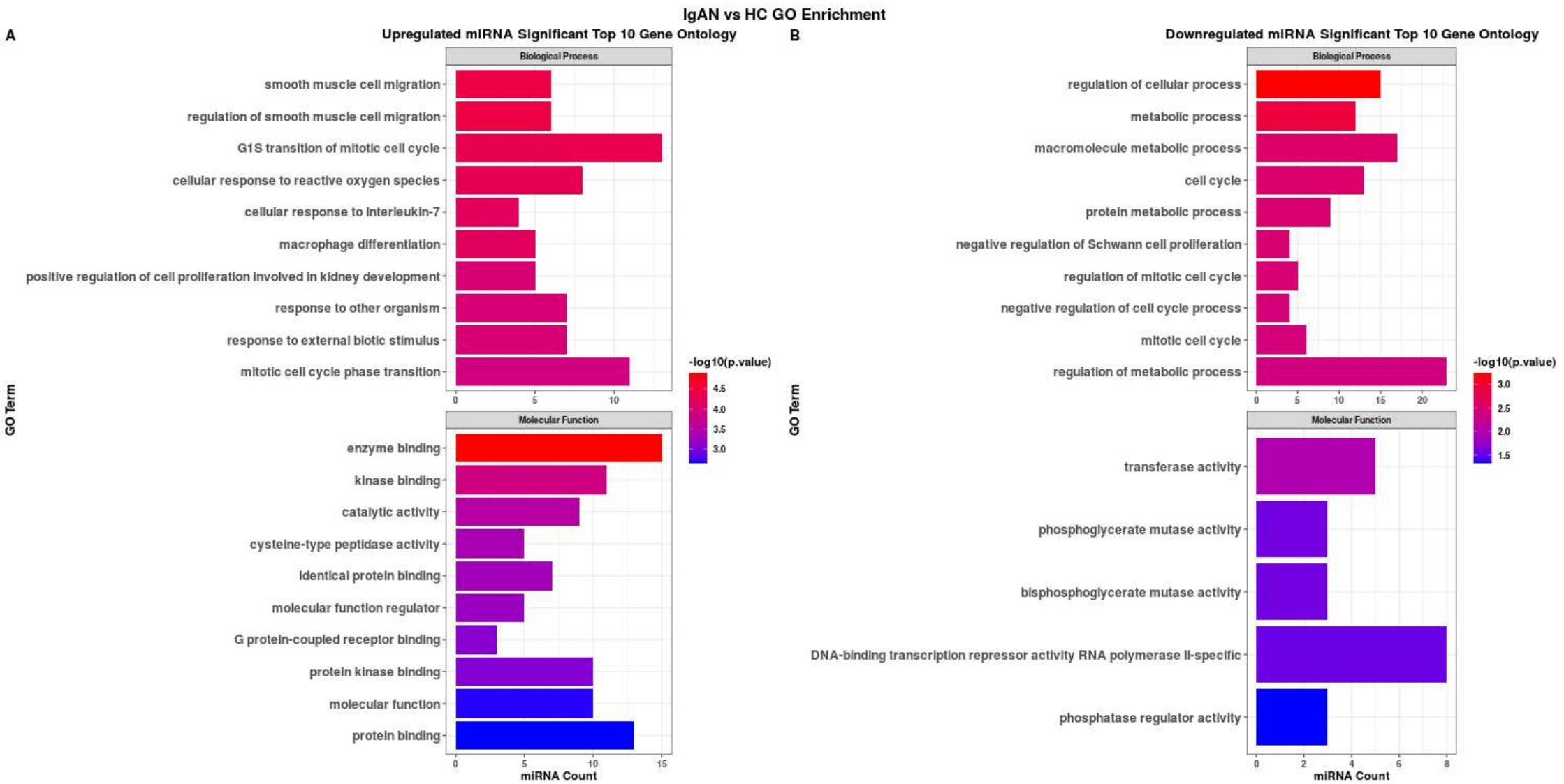


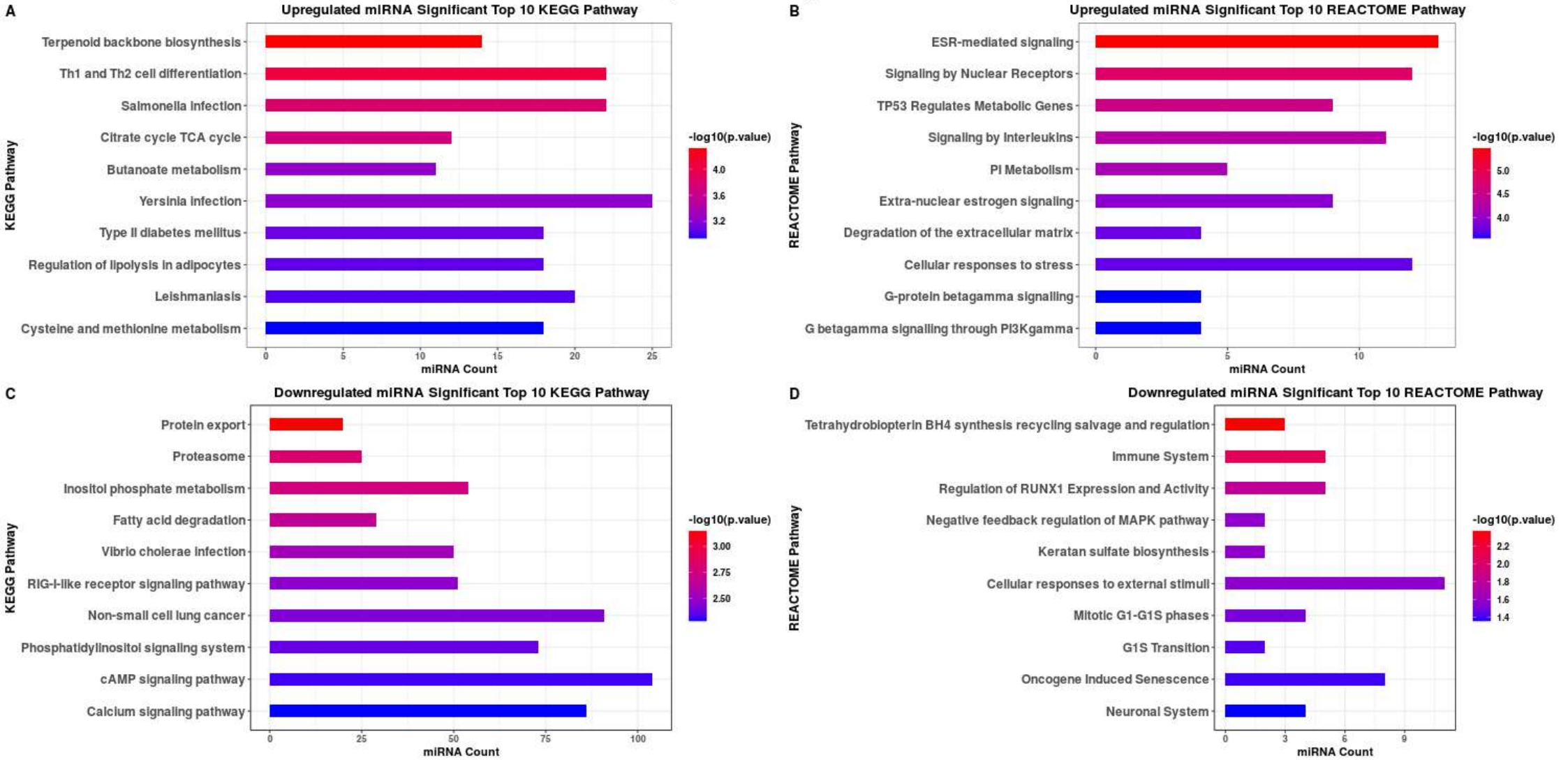
SUPPLEMENTARY FIGURE 1

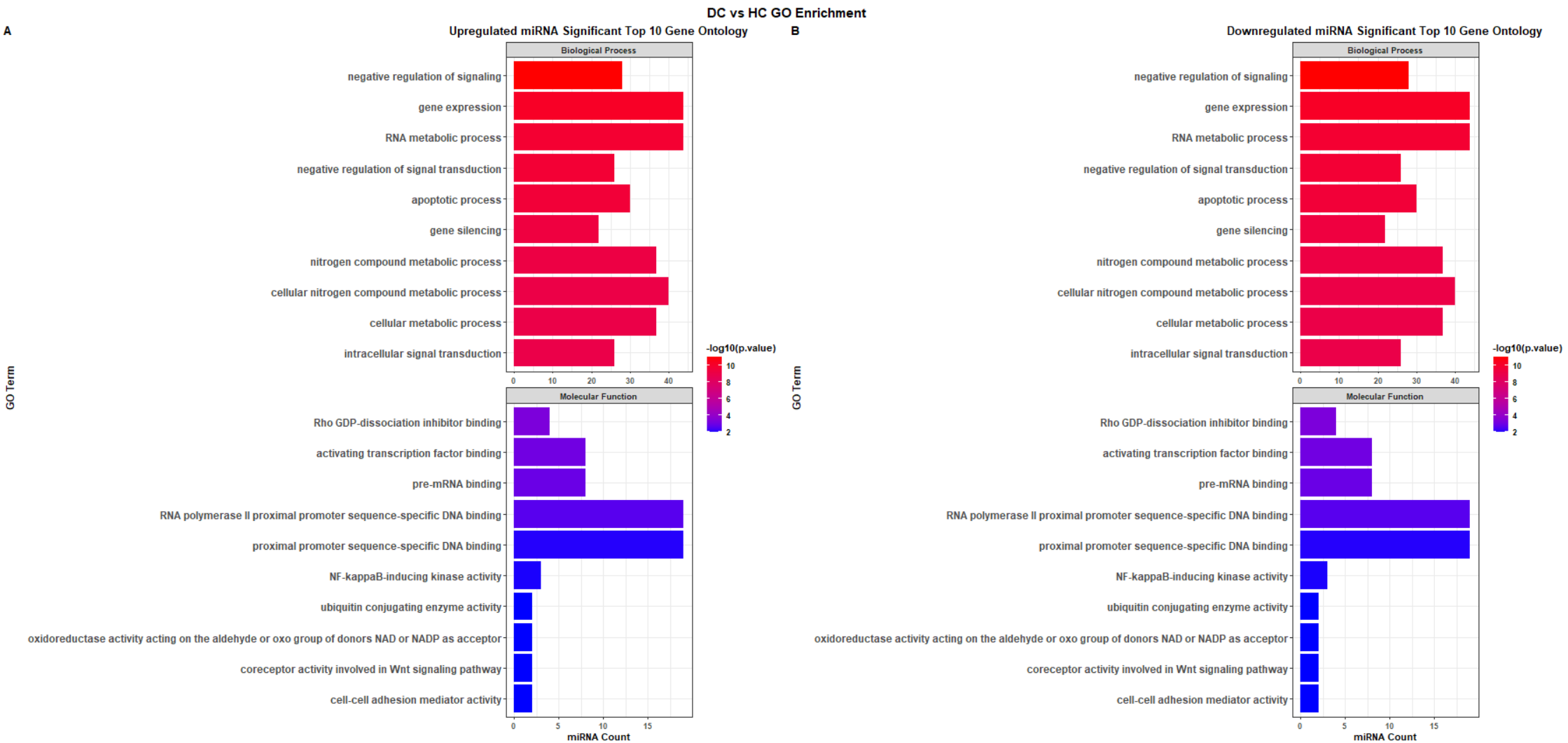
DC vs HC Pathway Enrichment





IgAN vs HC Pathway Enrichment





SUPPLEMENTARY TABLE 1

[IgAN vs HC]: 137 elements included exclusively in "IgAN vs HC":		[IgAN vs DC]:		[IgAN vs HC] and [IgAN vs DC]:
hsa-miR-320e		215 elements included exclusively in "IgAN vs DC":		37 common elements in "IgAN vs HC and IgAN vs DC":
hsa-miR-1915-3p		hsa-miR-548a-3p		hsa-miR-409-5p
hsa-miR-1972		hsa-miR-32-5p		hsa-miR-935
hsa-miR-4488		hsa-miR-326		hsa-miR-4532
hsa-miR-146b-3p		hsa-miR-20a-5p+hsa-miR-20b-5p		hsa-miR-320d
hsa-miR-599		hsa-miR-3150b-3p		hsa-miR-3195
hsa-miR-1268a		hsa-miR-5010-5p		hsa-miR-509-5p
hsa-miR-182-5p		hsa-miR-4787-3p		hsa-miR-3074-3p
hsa-miR-614		hsa-miR-384		hsa-miR-664b-3p
hsa-miR-3140-5p		hsa-miR-1288-3p		hsa-miR-568
hsa-miR-330-3p		hsa-miR-767-3p		hsa-miR-208b-5p
hsa-miR-154-5p		hsa-miR-525-3p		hsa-miR-3065-5p
hsa-miR-489-3p		hsa-miR-124-3p		hsa-miR-142-5p
hsa-miR-494-5p		hsa-miR-4435		hsa-miR-320c
hsa-miR-664b-5p		hsa-miR-613		hsa-miR-523-3p
hsa-miR-539-3p		hsa-miR-504-3p		hsa-miR-1252-5p
hsa-miR-2278		hsa-miR-580-3p		hsa-miR-151b
hsa-miR-297		hsa-miR-374b-5p		hsa-miR-410-3p
hsa-miR-3158-3p		hsa-miR-422a		hsa-miR-136-5p
hsa-miR-129-5p		hsa-miR-518b		hsa-miR-101-3p
hsa-miR-642a-3p		hsa-miR-491-3p		hsa-miR-562
hsa-miR-874-3p		hsa-miR-567		hsa-miR-143-3p
hsa-miR-3190-3p		hsa-miR-98-3p		hsa-miR-556-3p
hsa-miR-485-3p		hsa-miR-1224-5p		hsa-miR-492
hsa-miR-1301-3p		hsa-miR-365b-5p		hsa-miR-1248
hsa-miR-624-3p		hsa-miR-615-5p		hsa-miR-3613-5p
hsa-miR-134-5p+hsa-miR-6728-5p		hsa-miR-27b-3p		hsa-miR-511-5p
hsa-miR-206		hsa-miR-500a-5p+hsa-miR-501-5p		hsa-miR-1908-3p
hsa-miR-135a-5p		hsa-miR-516b-5p		hsa-miR-584-5p
hsa-miR-628-5p		hsa-miR-3179		hsa-miR-769-5p
hsa-miR-625-5p		hsa-miR-219a-5p		hsa-miR-499a-3p
hsa-miR-758-5p		hsa-miR-3614-3p		hsa-miR-548n
hsa-miR-1303		hsa-miR-518d-3p		hsa-miR-342-3p

IgAN vs HC and IgAN vs DC Venn data

hsa-miR-766-5p		hsa-miR-548j-3p	hsa-miR-654-3p
hsa-miR-548h-5p		hsa-miR-93-5p	hsa-miR-29b-3p
hsa-miR-211-3p		hsa-miR-545-3p	hsa-miR-23b-3p
hsa-miR-4741		hsa-miR-1908-5p	hsa-miR-29c-3p
hsa-miR-3185		hsa-miR-193b-3p	hsa-miR-194-5p
hsa-miR-631		hsa-miR-127-5p	
hsa-miR-1304-3p		hsa-miR-532-5p	
hsa-miR-221-5p		hsa-miR-553	
hsa-miR-376c-3p		hsa-miR-425-5p	
hsa-miR-652-3p		hsa-miR-367-3p	
hsa-miR-4431		hsa-miR-519b-3p	
hsa-miR-554		hsa-miR-548l	
hsa-miR-6511a-5p		hsa-miR-519e-3p	
hsa-miR-629-5p		hsa-miR-19b-3p	
hsa-miR-548d-3p		hsa-miR-601	
hsa-miR-510-5p		hsa-miR-576-5p	
hsa-miR-651-3p		hsa-miR-561-3p	
hsa-miR-323a-3p		hsa-miR-3918	
hsa-miR-4485-3p		hsa-miR-219a-1-3p	
hsa-miR-638		hsa-miR-31-5p	
hsa-miR-484		hsa-miR-1244	
hsa-miR-513c-3p		hsa-miR-202-3p	
hsa-miR-760		hsa-miR-708-5p	
hsa-miR-766-3p		hsa-miR-345-5p	
hsa-miR-128-2-5p		hsa-miR-133b	
hsa-miR-323a-5p		hsa-miR-24-3p	
hsa-miR-1255b-5p		hsa-miR-875-3p	
hsa-miR-382-3p		hsa-miR-1245b-3p	
hsa-miR-761		hsa-miR-152-3p	
hsa-miR-483-5p		hsa-miR-150-5p	
hsa-miR-663a		hsa-miR-1247-5p	
hsa-miR-452-5p		hsa-miR-15a-5p	
hsa-miR-936		hsa-miR-3192-5p	
hsa-miR-520b		hsa-miR-505-3p	

IgAN vs HC and IgAN vs DC Venn data

hsa-miR-2682-5p		hsa-miR-1271-3p		
hsa-miR-1185-1-3p		hsa-miR-3164		
hsa-miR-222-3p		hsa-miR-153-3p		
hsa-miR-934		hsa-miR-328-3p		
hsa-miR-590-3p		hsa-miR-151a-5p		
hsa-miR-4448		hsa-miR-105-5p		
hsa-miR-648		hsa-miR-219a-2-3p		
hsa-miR-3131		hsa-miR-151a-3p		
hsa-miR-330-5p		hsa-miR-520d-5p+hsa-miR-527+hsa-miR-518a-5p		
hsa-miR-1254		hsa-miR-873-5p		
hsa-miR-513c-5p		hsa-miR-524-3p		
hsa-miR-548ad-3p		hsa-miR-514a-5p		
hsa-miR-9-5p		hsa-miR-1180-3p		
hsa-miR-641		hsa-miR-874-5p		
hsa-miR-298		hsa-miR-152-5p		
hsa-miR-520g-3p		hsa-miR-596		
hsa-miR-198		hsa-miR-490-5p		
hsa-miR-604		hsa-miR-409-3p		
hsa-miR-6724-5p		hsa-miR-1264		
hsa-miR-196b-5p		hsa-miR-6503-3p		
hsa-miR-1269b		hsa-miR-1204		
hsa-miR-494-3p		hsa-miR-892a		
hsa-miR-566		hsa-miR-128-1-5p		
hsa-miR-630		hsa-miR-4458		
hsa-miR-592		hsa-miR-516a-5p		
hsa-miR-449c-5p		hsa-miR-578		
hsa-miR-1260a		hsa-miR-218-5p		
hsa-miR-1270		hsa-miR-370-5p		
hsa-miR-548ar-5p		hsa-miR-550a-5p		
hsa-miR-3615		hsa-miR-30a-3p		
hsa-miR-378b		hsa-miR-1306-5p		
hsa-miR-1205		hsa-miR-1299		
hsa-miR-125a-3p		hsa-miR-193a-5p+hsa-miR-193b-5p		
hsa-miR-3182		hsa-miR-196a-5p		

IgAN vs HC and IgAN vs DC Venn data

hsa-miR-552-3p		hsa-miR-487b-5p		
hsa-miR-1271-5p		hsa-miR-513b-5p		
hsa-miR-1226-3p		hsa-let-7d-5p		
hsa-miR-486-3p		hsa-miR-28-3p		
hsa-miR-612		hsa-miR-30e-3p		
hsa-miR-373-3p		hsa-miR-1305		
hsa-miR-374a-3p		hsa-miR-664a-3p		
hsa-miR-3130-3p		hsa-miR-548z+hsa-miR-548h-3p		
hsa-miR-219b-3p		hsa-miR-579-3p		
hsa-miR-3127-5p		hsa-miR-1250-5p		
hsa-miR-1304-5p		hsa-miR-575		
hsa-miR-744-5p		hsa-miR-19a-3p		
hsa-miR-433-3p		hsa-miR-514b-5p		
hsa-miR-517a-3p		hsa-miR-141-3p		
hsa-miR-339-5p		hsa-miR-590-5p		
hsa-miR-3151-5p		hsa-miR-371a-5p		
hsa-miR-371b-5p		hsa-miR-509-3p		
hsa-miR-573		hsa-miR-591		
hsa-miR-3144-3p		hsa-miR-651-5p		
hsa-miR-548a-5p		hsa-miR-181b-2-3p		
hsa-miR-26b-5p		hsa-miR-520a-5p		
hsa-miR-671-3p		hsa-miR-1249-5p		
hsa-miR-21-5p		hsa-miR-381-3p		
hsa-miR-30e-5p		hsa-miR-616-3p		
hsa-miR-191-5p		hsa-miR-507		
hsa-miR-4286		hsa-miR-127-3p		
hsa-miR-769-3p		hsa-miR-302b-3p		
hsa-miR-126-3p		hsa-miR-380-3p		
hsa-miR-30a-5p		hsa-miR-1178-3p		
hsa-let-7b-5p		hsa-miR-620		
hsa-miR-16-5p		hsa-miR-1236-3p		
hsa-miR-148a-3p		hsa-miR-450b-3p		
hsa-miR-23a-3p		hsa-miR-1322		
hsa-let-7a-5p		hsa-miR-496		

IgAN vs HC and IgAN vs DC Venn data

hsa-miR-451a		hsa-miR-891b			
hsa-miR-4454+hsa-miR-7975		hsa-miR-140-3p			
		hsa-miR-92b-3p			
		hsa-miR-4531			
		hsa-miR-548ai+hsa-miR-570-5p			
		hsa-miR-488-3p			
		hsa-miR-302e			
		hsa-miR-675-5p			
		hsa-miR-548ah-5p			
		hsa-miR-411-5p			
		hsa-miR-656-3p			
		hsa-miR-549a			
		hsa-miR-548al			
		hsa-miR-498			
		hsa-miR-608			
		hsa-miR-28-5p			
		hsa-miR-188-5p			
		hsa-miR-665			
		hsa-miR-577			
		hsa-miR-548i			
		hsa-miR-3928-3p			
		hsa-miR-593-3p			
		hsa-miR-564			
		hsa-miR-4787-5p			
		hsa-miR-485-5p			
		hsa-miR-216b-5p			
		hsa-miR-379-5p			
		hsa-miR-155-5p			
		hsa-miR-1203			
		hsa-miR-574-5p			
		hsa-miR-2116-5p			
		hsa-miR-3144-5p			
		hsa-miR-513a-5p			
		hsa-miR-302c-3p			

IgAN vs HC and IgAN vs DC Venn data

	hsa-miR-138-5p		
	hsa-miR-329-5p		
	hsa-miR-3180-3p		
	hsa-miR-5196-5p		
	hsa-miR-448		
	hsa-miR-216a-5p		
	hsa-miR-509-3-5p		
	hsa-miR-885-3p		
	hsa-miR-640		
	hsa-miR-1279		
	hsa-miR-149-5p		
	hsa-miR-190b		
	hsa-miR-190a-5p		
	hsa-miR-649		
	hsa-miR-520d-3p		
	hsa-miR-628-3p		
	hsa-miR-450a-5p		
	hsa-miR-587		
	hsa-miR-320a		
	hsa-miR-520c-3p		
	hsa-miR-217		
	hsa-miR-1266-5p		
	hsa-miR-193a-3p		
	hsa-miR-1273c		
	hsa-miR-499b-3p		
	hsa-miR-1827		
	hsa-miR-765		
	hsa-miR-495-3p		
	hsa-miR-1202		
	hsa-miR-1289		
	hsa-miR-515-3p		
	hsa-miR-1277-3p		
	hsa-miR-4451		
	hsa-miR-585-3p		

IgAN vs HC and IgAN vs DC Venn data

		hsa-miR-516a-3p+hsa-miR-516b-3p		
		hsa-miR-499b-5p		
		hsa-miR-541-3p		
		hsa-miR-671-5p		
		hsa-miR-1185-2-3p		
		hsa-miR-644a		
		hsa-miR-140-5p		
		hsa-miR-1206		
		hsa-miR-548g-3p		
		hsa-let-7i-5p		
		hsa-miR-199a-3p+hsa-miR-199b-3p		
		hsa-miR-4536-5p		
		hsa-miR-1283		

SUPPLEMENTARY TABLE 2

Validation of miRNAs that can differentiate IgA nephropathy cases vs healthy controls using dataset GSE64306

hsa-miR-4488 AUC:0.806(95% CI:0.621-0.99)

hsa-miR-3158.3p AUC:0.667(95% CI:0.359-0.974)

hsa-miR-1269b AUC:0.63(95% CI:0.288-0.972)

Validation of miRNAs that can differentiate IgA nephropathy cases vs healthy controls and IgA nephropathy cases vs disease controls using dataset GSE64306 and GSE141344

GSE64306

IgAN and Healthy controls

miRNA

AUC

95% CI

hsa-miR-101-3p

AUC=0.7407

95% CI: 0.41-1

hsa-miR-409-5p

AUC=0.7963

95% CI: 0.612-0.9806

hsa-miR-4532

AUC=0.8333

95% CI: 0.6511-1

hsa-miR-654-3p

AUC=0.4398

95% CI: 0.1437-0.7359

GSE64306

IgAN and Disease controls

miRNA

AUC

95% CI

hsa-miR-151b

AUC=0.7083

95% CI: 0.424-0.9926

hsa-miR-3195

AUC=0.5556

95% CI: 0.2936-0.8175

hsa-miR-4532

AUC=0.4653

95% CI: 0.1824-0.7482

hsa-miR-769-5p

AUC=0.5347

95% CI: 0.2831-0.7864

GSE141344

IgAN and Disease Controls

miRNA

AUC

95% CI

hsa-miR-151b

AUC=0.6

95% CI: 0.3571-0.8374

hsa-miR-3195

AUC=0.8264

95% CI: 0.6368-1

hsa-miR-4532

AUC=0.5764

95% CI: 0.3399-0.8129

hsa-miR-769-5p

AUC=0.4931

95% CI: 0.2477-0.7384

Validation of miRNAs that can differentiate IgA nephropathy cases vs disease controls using dataset GSE64306 and GSE141344

GSE64306

hsa-miR-1289

AUC=0.5694

95% CI: 0.3222-0.8167

hsa-miR-20a-5p

AUC=0.6389

95% CI: 0.3417-0.9361

hsa-miR-20b-5p

AUC=0.6111

95% CI: 0.3204-0.9018

hsa-miR-32-5p

AUC=0.6806

95% CI: 0.4227-0.9384

hsa-miR-525-3p

AUC=0.5

95% CI: 0.2543-0.7457

hsa-miR-548a-3p

AUC=0.59

95% CI: 0.3649-0.8157

GSE141344

hsa-miR-1289

AUC=0.4132

95% CI: 0.2137-0.6127

hsa-miR-20a-5p

AUC=0.5347

95% CI: 0.2877-0.7817

hsa-miR-20b-5p

AUC=0.6

95% CI: 0.3496-0.8448

hsa-miR-32-5p

AUC=0.4514

95% CI: 0.2044-0.6984

hsa-miR-525-3p

AUC=0.5

95% CI: 0.5-0.5

hsa-miR-548a-3p

AUC=0.5417

95% CI: 0.3025-0.7808

a. discovery cohort with 9 mirnas

hsa-miR-4532,"hsa-miR-4448", "hsa-miR-3158-3p","hsa-miR-151b", "hsa-miR-3195", "hsa-miR-4532", "hsa-miR-1289","hsa-miR-20a-5p+hsa-miR-20b-5p","hsa-miR-32-5p","hsa-miR-525-3p"

0= Control, 1=Disease, 2=IgAN

Class

Control (0)

Disease (1)

IgAN (2)

Accuracy (95% CI)

0.7692 (0.4619- 1 ((0.7529- 1)

0.7692 (0.4619- 0.9496)

Sensitivity

0.33333

1

0.8571

Specificity

0.9

1

0.6667

Pos Pred Value

0.5

1

0.75

Neg Pred Value

0.81818

1

0.8

Prevalence

0.23077

0.2308

0.5385

Detection Rate

0.07692

0.2308

0.4615

Detection Preval

0.15385

0.2308

0.6154

AUC (95% CI)

0.933 (0.8 - 1)

1 (1-1)

0.904 (0.71 - 1)

Kappa

0.2642

1

0.5301

a. Validation

Class

Control (0)

Disease (1)

IgAN (2)

Accuracy (95% CI)

0.8 (0.4439 -0.97

1 (0.69-1)

0.7 (0.3475-0.9333)

Sensitivity

0

1

0.8333

Specificity

1

0.875

0.5

Pos Pred Value

NaN

0.6667

0.7143

Neg Pred Value

0.8

1

0.6667

Prevalence

0.2

0.2

0.6

Detection Rate

0

0.2

0.5

Detection Preval

0

0.3

0.7

AUC (95% CI)

0.625(0.3125- 0.1

1 (1-1)

0.6666667 (0.5-0.83)

Kappa

0

1

0.3478

b. discovery cohort with 2 mirnas

hsa-miR-4532, has-miR-548a-3p

0= Control, 1=Disease, 2=IgAN

Class

Control (0)

Disease (1)

IgAN (2)

Accuracy (95% CI)

0.7692 ((0.4619- 0.8462(0.5455,0

0.8462 (0.5455, 0.9808)

Sensitivity

0.6667

1

1

Specificity

1

1

0.8333

Pos Pred Value

1

1

0.875

Neg Pred Value

0.9091

1

1

Prevalence

0.2308

0.2308

0.5385

Detection Rate

0.1538

0.2308

0.5385

Detection Preval

0.1538

0.2308

0.6154

AUC (95% CI)

0.8333333 (0.5-1

1 (1-1)

0.9047619 (0.741 - 1)

Kappa

0

0.4348

0.6905

b. Validation

Class

Control (0)

Disease (1)

IgAN (2)

Accuracy (95% CI)

0.8 ((0.4439- 0.9

0.8 ((0.4439- 0.9

0.6 (0.2624- 0.8784)

Sensitivity

0

0

1

Specificity

1

1

0

Pos Pred Value

NaN

NaN

0.6

Neg Pred Value

0.8

0.8

NaN

Prevalence

0.2

0.2

0.6

Detection Rate

0

0

0.6

Detection Preval

0

0

1

AUC (95% CI)

0.5 (0.5-1)

0.5 (0.5-1)

0.5 (0.5-1)

Kappa

0

0

0

seed: 123

seed: 7654

