

# miRNA Screening Panel (Platelet, 96 well format)

Catalog # KA6513      Size 1 Kit

## Applications

miRNA ID	platelet enrichment	platelet function	other cardiovascular functions
hsa-miR-126-3p	+++	platelet activation	
hsa-miR-223-3p	+++	aggregation and granule secretion	
hsa-miR-197-3p	+++	platelet activation	
hsa-miR-191-5p	+++	platelet activation	
hsa-miR-24-3p	++	platelet activation	monocyte differentiation
hsa-miR-21-5p	++	platelet biogenesis	inhibits cell growth in VSMCs
hsa-miR-28-3p	++	megakaryocyte differentiation	
hsa-miR-320a	++		insulin signaling, angiogenesis, progression of retinopathy
hsa-miR-150-5p	+	platelet activation, megakaryocytopoiesis	insulin signaling, angiogenesis, progression of retinopathy
hsa-miR-27b-3p	+	megakaryocyte differentiation	angiogenesis, vascular disease and vascular aging, progression of retinopathy
hsa-miR-122-5p	-		fatty acid and cholesterol synthesis in hepatocytes

miRNA ID	platelet enrichment	main cellular origin in plasma	validated pathways/targets
hsa-miR-126-3p	+++	platelets, megakaryocytes & endothelial cells	VEGF signaling: SPRED1 and PK3R2/p85-B1; Vascular inflammatory pathways: VCAM-1
hsa-miR-223-3p	+++	platelets & megakaryocytes	P2Y12 receptor; RPS6KB1/HIF-1a signaling pathway
hsa-miR-197-3p	+++	platelets, megakaryocytes & endothelial cells	
hsa-miR-191-5p	+++	platelets & endothelial cells	
hsa-miR-24-3p	++	platelets & endothelial cells, monocytes	PDGF-BB signaling: GATA2, PAK4; Vascularity, cardiac function, and infarct size after myocardial infarction
hsa-miR-21-5p	++	vascular smooth muscle cells, endothelial cells, cardiac fibroblasts, and cardiomyocytes, platelets	PTEN, BMPR2, WWP1, WASp
hsa-miR-28-3p	++	platelets & hematopoietic cells	
hsa-miR-320a	++	platelets & endothelial cells	Survivin, VEGF
hsa-miR-150-5p	+	leukocytes, megakaryocytes & monocytes	c-Myb, VEGF-a, HIF-1a
hsa-miR-27b-3p	+	platelets & vasculature	PPARγ, SMAD7
hsa-miR-122-5p	-	liver tissue	multiple genes required for hepatocyte differentiation and fatty acid synthesis

## Screening

Summary of evidence for miRNA platelet biomarkers included in the kit.

## Cycler

Cycler

PCR cycler compatibility

## Specification

### Product Description

miRNA Screening Panel enables the simple and standardized analysis of specific circulating microRNAs in human serum and plasma, which reflects platelet function.

**Supplied Product**

## Kit content:

## A. Serum/Plasma RNA extraction

1. Lysis Buffer
2. Protein Precipitation Buffer
3. Wash Buffer 1
4. Wash Buffer 2
5. RNase-free water
6. Spin columns
7. Collection tube 1.5 mL
8. Collection tube 2 mL

## B. cDNA synthesis

1. RNA spike-in Mix
2. cDNA spike-in Mix
2. 5x RT Buffer
3. 10x RT Enzyme Mix
4. RNase-free water
5. 2x miGreen Mix
6. Glycogen (5mg/mL)

## C. qPCR

1. Primer coated 96 well qPCR plates

**Pack Size**

48 samples

**Suitable Sample**

Serum, Plasma

**Sample Size**200  $\mu$ L**Reactivity**

Human

**Regulation Status**

For research use only (RUO)

**Quality Control Testing**

Screening

**Storage Instruction**

Store the kit at -20°C.

**Note**

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- Screening

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