

Catalog No. AM100051

50 Reactions

To be used in conjunction with the Vantage™ microRNA Detection Kit, catalog number AM100091 (50 reactions) or AM100092 (200 reactions).

Components included in this kit:

Component	Amount
Hypoxia Panel 1 Bead Mix	400 µL

Handling Instructions

The kit is shipped on ice packs. Upon receipt, store all components at 2-8°C.

Related Products

Catalog Number

Vantage™ microRNA Detection Kit (50 reactions)	AM100091
Vantage™ microRNA Detection Kit (200 reactions).....	AM100092
Vantage™ Total RNA Purification Kit	NP100026
Vantage™ microRNA Purification Kit	NP100028
Vantage™ microRNA Labeling Kit.....	AM100044
Vantage™ Oncology Panel 1.....	AM100045
Vantage™ Pancreatic Cancer Panel 1	AM100046
Vantage™ Breast Cancer Panel 1	AM100047
Vantage™ Ovarian Cancer Panel 1.....	AM100098
Vantage™ Cardiac Panel 1	AM100049
Vantage™ Diabetes Panel 1.....	AM100050
Vantage™ Prostate Cancer Panel 1	AM100052
Vantage™ miR-Plex Control.....	AM100090

Sequences and Nomenclature

The sequences and nomenclature of the mature microRNAs were obtained from the [miRBase Sequence Database](#) version 14.0, released in September 2009. Names annotated with (*) indicate a mature microRNA sequence that originated from a stem-loop molecule that generated two mature microRNA sequences. In these cases, one mature sequence has a standard name while the other sequence from the same stem-loop has an annotated name (*).

xMAP® Bead Region	Human microRNA Nomenclature	Human microRNA mature sequence	Equivalent Mouse (Mus musculus)	Equivalent Rat (Rattus norvegicus)
26	hsa-miR-20a	UAAAGUGCUUAUAGUGCAGGUAG	mmu-miR-20a	rno-miR-20a
27	hsa-miR-21	UAGCUUAUCAGACUGAUGUUGA	mmu-miR-21	rno-miR-21
28	hsa-miR-210	CUGUGCGUGUGACAGCGGCUGA	mmu-miR-210	rno-miR-210
60	hsa-miR-24	UGGCUCAGUUCAGCAGGAACAG	mmu-miR-24	rno-miR-24
62	hsa-miR-107	AGCAGCAUUGUACAGGGCUAUCA	mmu-miR-107	rno-miR-107
65	hsa-miR-23a/b	AUCACAUUGCCAGGGAUUUCC	mmu-miR-23a/b	rno-miR-23a/b
70	hsa-miR-26a	UUCAAGUAAUCCAGGAUAGGCU	mmu-miR-26a	rno-miR-26a
76	hsa-miR-125b-1*	ACGGGUUAGGCUCUUGGGAGCU	mmu-miR-125b-3p	rno-miR-125b-3p
90	hsa-miR-27a	UUCACAGUGGCUAAGUUCGCGC	mmu-miR-27a	rno-miR-27a
92	hsa-miR-181a	AACAUUCAACGCUGUCGGUGAGU	mmu-miR-181a	rno-miR-181a
49	5.8S Ribosomal RNA			

Performance Characteristics
I. Specificity

In separate reactions, 200 attomoles of synthetic biotinylated miR-107, miR-125b-1*, miR-181a, miR-21, miR-210, miR-23a, miR-24, miR-26a, and miR-27a were detected with the *Vantage™* microRNA detection kit (Cat. No. AM100091). The assay was performed using the standard protocol. Most sites show cross-reactivity of less than 1%. A few sites show cross-reactivity of up to 5%. If required, increased specificity can be achieved by pre-heating the wash buffer to 60°C.

microRNA Sequences	miR-107	miR-125b-1*	miR-181a	miR-20a	miR-21	miR-210	miR-23a/b	miR-24	miR-26a	miR-27a
	% Cross-Reactivity									
miR-107	100.0%	0.2%	0.0%	nd	0.6%	4.1%	0.0%	0.5%	0.0%	1.1%
miR-125b-1*	1.2%	100.0%	0.1%	nd	0.5%	2.3%	0.0%	0.7%	0.1%	1.4%
miR-181a	0.0%	0.2%	100.0%	nd	0.3%	3.6%	0.0%	0.1%	0.0%	0.3%
miR-21	0.7%	0.0%	0.0%	nd	100.0%	4.1%	0.0%	0.0%	0.0%	0.4%
miR-210	0.1%	0.2%	0.1%	nd	0.4%	100.0%	0.0%	0.0%	0.0%	0.7%
miR-23a	0.0%	0.0%	0.0%	nd	0.3%	0.0%	100.0%	0.0%	0.0%	0.4%
miR-24	0.5%	0.3%	0.1%	nd	0.1%	0.0%	0.0%	100.0%	0.0%	0.1%
miR-26a	0.0%	0.0%	0.0%	nd	0.1%	2.7%	0.0%	0.1%	100.0%	0.5%
miR-27a	0.2%	0.0%	0.1%	nd	0.1%	0.0%	0.0%	0.3%	0.0%	100.0%

II. Sensitivity – Limit of Detection (LOD) determined using synthetic microRNAs

Synthetic microRNAs were labeled using the *Vantage™* microRNA Labeling Kit (Cat. AM100044). A range of different concentrations of labeled microRNA was tested with the *Vantage™* microRNA Detection Kit. The limit of detection was calculated using 2 x the mean of the negative control (blank).

Limit of Detection Range : 0.03-0.1 pg (5-15 attomoles)

III. miR-plex™ Control Panel (Catalog # AM100090)

The miR-Plex™ Control is a mix of seven biotinylated microRNAs that can be used as controls for the Vantage™ microRNA Detection Panels. The miR-plex™ Control Panel panel contains labeled microRNA comprising miR-1, miR-107, miR0126, miR-203, miR-21, miR-9, and 5.8S ribosomal RNA. When used in place of a labeled RNA sample, the following results should be obtained

Detection Panel	Cat. No.	miR-1	miR-107	miR-126	miR-203	miR-21	miR-9	5.8S
Hypoxia Panel 1	AM100051	Neg	Low	Neg	Neg	Medium	Neg	High

Terms and Conditions

By opening this Assay Product (which contains fluorescently labeled microsphere beads authorized by Luminex Corporation) or using this Assay Product in any manner, you are consenting to be bound by the following terms and conditions. You are also agreeing that the following terms and conditions constitute a legally valid and binding contract that is enforceable against you. If you do not agree to all of the terms and conditions set forth below, you must promptly return this Assay Product for a full refund prior to using it in any manner. You, the customer, acquire the right under Luminex Corporation’s patent rights, if any, to use this Assay Product or any portion of this Assay Product, including without limitation the microsphere beads contained herein, only with Luminex Corporation’s laser based fluorescent under the name Luminex Instrument.

Safety and Use Statement

All biological materials should be handled as potentially hazardous. Follow universal precautions as established by the Centers for Disease Control and Prevention and by the Occupational Safety and Health Administration when handling and disposing of potentially infectious or hazardous agents.

This product is authorized for laboratory research use only. The product has not been qualified or found safe and effective for any human or animal diagnostic application. Uses other than the labeled intended use may be a violation of applicable law. If you have any questions concerning the use of this product, please contact OriGene Technologies, Inc. at 1-888-267-4436 (301-340-3188 outside the US) or visit www.origene.com.

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