Vantage™ Ovarian Cancer Panel 1

Store at 2-8°C

Catalog No. AM100048 **50 Reactions**

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

Important Note

The *Van*tage™ Ovarian Cancer Panel contains probes that detect similar microRNA species. Therefore it is recommended to perform the wash steps with Wash Buffer pre-heated to 60°C (see the protocol for the Vantage™ microRNA Detection Kit).

Components included in this kit:

Component	Amount
Ovarian Cancer Panel 1 Bead Mix	400 µL

Handling Instructions

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

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™ Cardiac Panel 1	AM100049
Vantage™ Diabetes Panel 1	AM100050
Vantage™ Hypoxia Panel 1	AM100051
Vantage™ Prostate Cancer Panel 1	AM100052
Vantage™ miR-Plex Control	AM100090

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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)
27	hsa-miR-21	UAGCUUAUCAGACUGAUGUUGA	mmu-miR-21	rno-miR-21
83	hsa-miR-141	UAACACUGUCUGGUAAAGAUGG	mmu-miR-141	rno-miR-141
54	hsa-miR-200a	UAACACUGUCUGGUAACGAUGU	mmu-miR-200a	rno-miR-200a
63	hsa-miR-200b	UAAUACUGCCUGGUAAUGAUGA	mmu-miR-200b	rno-miR-200b
73	hsa-miR-200c	UAAUACUGCCGGGUAAUGAUGGA	mmu-miR-200c	rno-miR-200c
82	hsa-miR-203	GUGAAAUGUUUAGGACCACUAG	mmu-miR-203	rno-miR-203
25	hsa-miR-205	UCCUUCAUUCCACCGGAGUCUG	mmu-miR-205	rno-miR-205
57	hsa-miR-214	ACAGCAGGCACAGACAGGCAGU	mmu-miR-214	rno-miR-214
49	5.8S Ribosomal RNA			

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Performance Characteristics

I. Specificity

In separate reactions,1000 attomoles of synthetic biotinylated miR-141, miR200a, miR200b, or miR-200c were were detected with the *Van*tage™ microRNA detection kit (Cat. No. AM100091). The assay was performed using both the standard protocol and with a high stringency wash at 60°C. With the exception of the very similar sequences of the miR-200 family, all miR sites in the assay show negligible cross-reactivity under standard protocol conditions (not all miRs shown). Specificity for the specific miRs in the miR-200 family is increased by raising the wash temperature, but the overall assay signal is reduced.

		miR-141		**miR-200a**		**miR-200b**		**miR-200c**	
		RT	**60°C**	**RT**	**60°C**	**RT**	**60°C**	**RT**	**60°C**
MicroRNA Sequences		**% Cross Reactivity**							
miR-141	**UAACACUGUCUGGUAAAGAUGG**	**100%**	**100%**	8%	1%	1%	<0.1%	0%	0%
miR-200a	**UAACACUGUCUGGUAACGAUGU**	47%	1%	**100%**	**100%**	5%	<0.1%	0%	0%
miR-200b	**UAAUACUGCCUGGUAAUGAUGA**	9%	1%	6%	<0.1%	**100%**	**100%**	13%	0%
miR-200c	**UAAUACUGCCGGGUAAUGAUGGA**	2%	1%	<0.1%	<0.1%	65%	2%	**100%**	**100%**

II. Assay Sensitivity

Synthetic miR-205 was labeled with the *Van*tage™ microRNA Labeling Kit (Cat. No. AM100044) and detected using the *Van*tage™ microRNA Detection Kit and Vantage™ Ovarian Cancer Panel (AM100048). A range of concentrations of labeled microRNA was tested and the limit of detection was determined with both the standard wash protocol the protocol utilizing 60°C Wash Buffer to increase assy stringency and specificity.

Wash Buffer Temperature	**Limit of Detection of Synthetic miR-205**	
	pg	**attomoles**
Room Temp.	0.040	5.575
60°C	0.029	4.070

Using Wash Buffer heated to 60°C resulted in only a slight decrease in assay sensitivity (higher limit of detection) but significantly increased assay specificity.

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
Ovarian Cancer Panel	AM100048	Neg	Neg	Neg	Low	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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