

An Introduction to the

GeneAssist™ miRNA Workflow Builder

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What is it?

The GeneAssist™ miRNA Workflow Builder is an online tool that allows Applied Biosystems customers to:

- Order miRNA analysis products (TaqMan® MicroRNA Assays, Ambion® Pre-miR™ miRNA Precursors, and Ambion® Anti-miR™ miRNA Inhibitors) via a simple, streamlined process that begins by specifying the miRNA(s) of interest
- Order pre-designed miRNA analysis products for a single miRNA or a batch of many miRNAs
- Order custom designed Ambion Pre-miR miRNA Precursors and Ambion Anti-miR miRNA Inhibitors for unpublished miRNA sequences
- View and order additional products ideal for miRNA analysis experiments
- Place an online order, export a shopping list for fax/email orders, or export an XML list for use with online procurement systems

Getting Started

Go to www5.appliedbiosystems.com/tools/mima or access the tool via the relevant product pages on the Applied Biosystems website.

The tool opens on a “Home” screen where you start by choosing a method for specifying the target miRNA(s) for the desired miRNA analysis products. The options are:

• Search for a single miRNA

Choose this method to view analysis products for one miRNA at a time. You may search for the miRNA by entering the miRNA ID (name), the miRBase accession number, or the miRNA sequence.

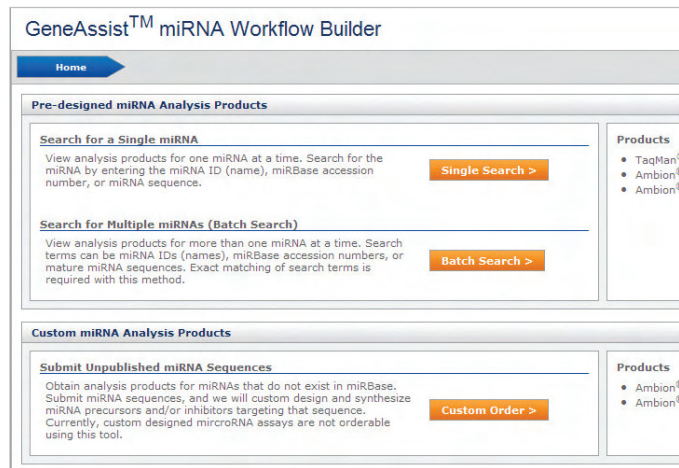
• Search for multiple miRNAs (Batch Search)

Choose this method to view analysis products for more than one miRNA at a time. Search terms can be miRNA IDs (names), miRBase accession numbers, or mature miRNA sequences. Exact matching of search terms is required with this method.

• Enter an unpublished (not in miRBase) miRNA sequence

Choose this method to obtain analysis products for miRNAs that do not exist in our database (which is derived from miRBase). Simply submit an unpublished sequence to order a custom designed miRNA precursor or inhibitor. (Currently, custom designed microRNA assays can not be ordered using this tool).

These three methods are explained in greater detail in subsequent sections of this document.



Note: When using one of the search-based methods above, a shortcut is available if you already know the Product ID (not the Part Number) of the product you are interested in purchasing. By searching on the Product ID you will bypass the miRNA selection step and be taken directly to the product (if available).

Method 1: Search for a Single miRNA

Use this method to view miRNA analysis products for one miRNA at a time. Once the target miRNA is found and selected, the analysis products available for that miRNA will be displayed.

Search for miRNA

The database fields that can be searched include mature and stem-loop miRBase miRNA IDs (names), mature and stem-loop miRBase miRNA Accession Numbers, and mature and stem-loop miRNA sequences.

Exact matching is not necessary with this method. In other words, you can enter a partial search term and obtain search results as long as “contains,” “starts with,” or “ends with” are chosen as the search criteria.

A species filter is available below the search input boxes, allowing you to limit your search results to only those miRNAs of a particular species.

A shortcut is available with this method if you already know the Product ID (not the Part Number) of the miRNA analysis product that you are interested in purchasing. By searching on the Product ID you will bypass the miRNA viewing/selection steps and be taken directly to the product (if available).

Select miRNA, then Select Products

From the search results, select your miRNA of interest to view additional information about this miRNA, as well as the products available for analysis of this miRNA.

GeneAssist™ miRNA Workflow Builder

Home Search Product Details Controls & Other Products Review & C...

Next

Search for a Single miRNA

Recent Searches: mir-16

Field to be Searched: miRBase Mature miRNA ID (Name) Criteria: Contains Search Term: mir-16

Species

Select All Species Clear

Human Mouse Other

Rat A. thaliana

C. elegans Drosophila

Other species list: Anopheles gambiae, Apis mellifera, Ateles geoffroyi, BK polyomavirus, Bombyx mori, Bos taurus (Cow), Brassica napus

Hold "Ctrl" to select multiple species. Submit

Search Results

5 result(s) for miRBase Mature miRNA ID (Name) contains "mir-16"

miRBase Version 12.0

Mature ID	Mature Accession #	Stem-loop ID	Stem-loop Accession #	Species	
hsa-miR-16-1*	MIMAT0004489	hsa-mir-16-1	MI0000070	Human	Select
hsa-miR-16-2*	MIMAT0004518	hsa-mir-16-2	MI0000115	Human	Select
hsa-miR-16	MIMAT0000069	hsa-mir-16-2	MI0000115	Human	Select
mmu-miR-16*	MIMAT0004625	mmu-mir-16-1	MI0000565	Mouse	Select
mmu-miR-16	MIMAT0000527	mmu-mir-16-1	MI0000565	Mouse	Select

In the list of available products, you can modify the product size (if more than one size is available) and the quantity before adding a product to your Shopping List (displayed at the far right side of the screen).

Your Shopping List will be maintained throughout the session. You can return to the “Search” screen, select a different miRNA, and add products associated with this new miRNA to your Shopping List. You can even return to the “Home” screen and select a different target specification method and add products to your same Shopping List using this new method. Products are easily removed from the Shopping List by clicking the red “X” to the right of the product listing.

Once your Shopping List contains all desired miRNA analysis products, you have two options:

- Click the “Order Now” button at the top of the Shopping List (or the “Review & Order” arrow at the top of the screen) to review the items on your Shopping List and add them to your Applied Biosystems Shopping Basket (or to save for fax/email ordering).
- Or proceed to the next step in the workflow by clicking “Next” or the “Controls & Other Products” arrow at the top of the screen. Here you will be shown other Applied Biosystems products that you might find useful for your miRNA analysis research.

The “Controls & Other Products” option and “Review & Order” step are described in greater detail in subsequent sections of this document.

The screenshot displays the GeneAssist™ miRNA Workflow Builder interface. At the top, there are navigation arrows for Home, Search, Product Details (selected), Controls & Other Products, and Review & Order. Below the navigation is the "miRNA Details" section, which includes fields for Mature ID (hsa-miR-16), Mature Accession (MIMAT0000069), Stem-loop ID (hsa-miR-16-2), Stem-loop Accession # (MIM000115), and Species (Human). It also shows the Mature Sequence, Stem-loop Sequence, miRBase Gene Family ID (miR-16), and miRBase Gene Family Accession # (MIF0000005). Below this is the "Available Products" table:

Product Type	Product ID	Product Name	Target Species	Size	Quantity	Add AS
TagMan® MicroRNA Assays	000391	hsa-miR-16	Human Mouse Rat More species...	50 RT/150 TagMan® miRNA	1	Add
Ambion® Anti-miR™ miRNA Inhibitors	AM10339	hsa-miR-16	Human Mouse Rat More species...	AMB1000, 5 nmol	1	Add
Ambion® Pre-miR™ miRNA Precursors	PM10339	hsa-miR-16	Human Mouse Rat More species...	AMB1000, 5 nmol	1	Add

On the right side, the "Shopping List (3 Items)" is visible, showing the three items added from the table above, each with a red "X" icon for removal. At the top of the Shopping List, there are "Order Now" and "Clear List" buttons.

Method 2: Search for Multiple miRNAs (Batch Search)

Use this method to view analysis products for multiple miRNAs at once. miRNAs that exactly match the search terms that you enter will be displayed along with their corresponding analysis products. This method is the best choice for ordering many products at once, but is less flexible than the single miRNA search method since exact matching of search terms is required.

Search for miRNAs

Your “batch” of search terms can be entered manually, or by importing them from a file. All of the search terms must be of the same type and you must indicate the type using the drop-down menu to the left of the input box. Available search term types are mature and stem-loop miRBase miRNA IDs (names), mature and stem-loop miRBase miRNA Accession Numbers, and mature miRNA sequence.

Exact matching of search terms is necessary with this method. If a search term does not match any term in our database, you will obtain “No result” for that particular search term.

A product filter is available to the left of the search term entry box. With this you can limit the product types that are displayed in the search results.

As with the “single search” method, your search terms can also consist of Product IDs (not Part Numbers). In this instance, only those products with exactly matching Product IDs will be displayed in the search results. (Related products will also be displayed, but less prominently.)

The screenshot shows the 'GeneAssist™ miRNA Workflow Builder' interface. At the top, there are navigation tabs: 'Home', 'Search' (which is active), 'Controls & Other Products', and 'Review & Order'. Below the navigation is the title 'Search for Multiple miRNAs (Batch Search)'. There is an 'Open/Import File' button with a folder icon. The main search area is divided into two sections. The left section is titled 'Select a search term type.' and contains a dropdown menu currently showing '--Select a Type--'. Below this is a section titled 'Desired Product Type:' with three checked checkboxes: 'TaqMan® MicroRNA Assays', 'Ambion® Pre-miR™ miRNA Precursors', and 'Ambion® Anti-miR™ miRNA Inhibitors'. The right section is titled 'Enter search terms.' and contains a text input box with the placeholder text 'Separate terms by a comma, space, or return.' Below the input box, a note states 'Exact matching of search terms is required with this search method.' At the bottom right of the search area are two buttons: 'Clear' and 'Submit'.

Select Products

While viewing the search results, add a product to your Shopping List by simply checking the box to the left of each product. Uncheck the box to remove that product from the Shopping List. If more than one product size is available, you can modify the product size using the drop-down menu at the top of the product column prior to adding that product to the Shopping List. Product quantity cannot be modified on this screen, but you will have the opportunity to modify product quantity on the “Review & Order” screen mentioned below.


Once your Shopping List contains all desired miRNA analysis products, you have two options:

- Click the “Order Now” button at the top of your Shopping List (or the “Review & Order” arrow at the top of the screen) to review the items on your Shopping List and add them to your Applied Biosystems Shopping Basket (or to save for fax/email ordering).
- Or proceed to the next step in the workflow by clicking “Next” or the “Controls & Other Products” arrow at the top of the screen. Here you will be shown other Applied Biosystems products that you might find useful for miRNA analysis research.

You can export a file of your full search results by clicking the “Export File” icon at the top of the search results table. This might be useful for later ordering or as a source of miRNA data or future search terms.

Search Results

miRBase Version 12.0

 Export File

	Search Term (Type = Mature miRNA ID)	Mature miRNA ID	Mature miRNA Accession Number	Target Species	TaqMan® MicroRNA Assays	Ambion® Pre-miRNA Precursors	Ambion® Anti-miRNA Inhibitors
					<input type="checkbox"/> Select All	<input type="checkbox"/> Select All	<input type="checkbox"/> Select All
1	hsa-mir-28	No Results					
2	hsa-mir-31	hsa-mir-31	MIMAT0000089	Human More...	<input type="checkbox"/> 002279 hsa-mir-31	<input type="checkbox"/> PM11465 hsa-mir-31	<input type="checkbox"/> AM11465 hsa-mir-31
3	hsa-mir-32	hsa-mir-32	MIMAT0000090	Human More...	<input type="checkbox"/> 002109 hsa-mir-32	<input type="checkbox"/> PM12584 hsa-mir-32	<input type="checkbox"/> AM12584 hsa-mir-32
4	hsa-mir-100	hsa-mir-100	MIMAT0000098	Human More...	<input type="checkbox"/> 000437 hsa-mir-100	<input type="checkbox"/> PM10188 hsa-mir-100	<input type="checkbox"/> AM10188 hsa-mir-100
5	hsa-mir-101	hsa-mir-101	MIMAT0000099	Human More...	<input type="checkbox"/> 002283 hsa-mir-101	<input type="checkbox"/> PM11414 hsa-mir-101	<input type="checkbox"/> AM11414 hsa-mir-101

Method 3: Submit Unpublished miRNA Sequences

Use this method to submit unpublished miRNA sequences and order custom designed miRNA analysis products. An unpublished sequence is one that is not found in miRBase or our own database (which is derived from miRBase).

Submit Sequences

Simply enter one or more mature miRNA sequences, along with a unique name for each sequence. (This name will also be applied to the custom designed product.) The sequence must be comprised of A, G, C, T, and U only, and cannot exceed 50 nucleotides in length.

View and Select Custom Products

After submitting your sequences you will be taken to a screen showing details of the available custom (i.e., "Made-to-Order") products. Currently, only custom designed Ambion® Pre-miR™ miRNA Precursors and Anti-miR™ miRNA Inhibitors can be ordered using this tool.

If a sequence that you entered matches a sequence in our database, then you will not be shown custom products for that sequence, but rather the available pre-designed (i.e., "Inventoried") products.

While viewing the available products, you can modify the size and quantity of the product prior to adding it to your Shopping List. Simply click the "Add" button to add the desired products to your Shopping List.

The screenshot shows the 'GeneAssist™ miRNA Workflow Builder' interface. At the top, there are navigation tabs: 'Home', 'Enter/Edit Sequences' (which is active), 'Product Details', and 'Controls & Other Products'. Below the tabs, the main heading is 'Submit Unpublished miRNA Sequences (Custom Order)'. A note states: 'Sequences must be comprised of A, G, C, T, and U only, and cannot exceed 28 nucleotides in length. Enter a unique name for each sequence. It will be used as an identifier for both the sequence and the product that we custom design against that sequence.'

Name	Sequence	Clear All
<input type="text"/>	<input type="text"/>	<input type="button" value="Clear"/>
<input type="text"/>	<input type="text"/>	<input type="button" value="Clear"/>
<input type="text"/>	<input type="text"/>	<input type="button" value="Clear"/>

Below the table is a button labeled '+ Add Additional Sequences'. At the bottom right of the form is a large orange button labeled 'Submit Sequence(s) >'.

Once your Shopping List contains all desired miRNA analysis products, you have two options:

- Click the “Order Now” button at the top of your Shopping List (or the “Review & Order” arrow at the top of the screen) to review the items on your Shopping List and add them to your Applied Biosystems Shopping Basket (or to save for fax/email ordering).
- Or proceed to the next step in the workflow by clicking “Next” or the “Controls & Other Products” arrow at the top of the screen. Here you will be shown other Applied Biosystems products that you might find useful for miRNA analysis research.

GeneAssist™ miRNA Workflow Builder

Home > Enter/Edit Sequences > **Product Details** > Controls & Other Products

Previous Next

miRBase Version 12.0

Custom Ambion® Pre-miR™ miRNA Precursors

Sequence	Product Availability	Product ID	Product Name	Size	Quantity	Add All
UAGCAGCA...	Made-to-Order	AFCR6MQ	SEQ1	20 nmol	1	Add
UAGCAGCA...	Made-to-Order	AFD04SY	SEQ2	20 nmol	1	Add

The sequences below match published miRNA sequences. A custom designed product is not necessary.

UAGCAGCA...	Inventoried	PM10339	hsa-miR-16	AM1700: 5 nmol	1	Add
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Custom Ambion® Anti-miR™ miRNA Inhibitors

Sequence	Product Availability	Product ID	Product Name	Size	Quantity	Add All
UAGCAGCA...	Made-to-Order	AED04SY	SEQ1	20 nmol	1	Add
UAGCAGCA...	Made-to-Order	AEE92Y6	SEQ2	20 nmol	1	Add

The sequences below match published miRNA sequences. A custom designed product is not necessary.

UAGCAGCA...	Inventoried	AM10339	hsa-miR-16	AM1700: 5 nmol	1	Add
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Controls & Other Products

The GeneAssist™ miRNA Workflow Builder makes it simple to find and order many products helpful for miRNA analysis experiments. After selecting miRNA assays/precursors/inhibitors, click “Next” or the “Controls & Other Products” arrow at the top of the screen to view other products that might be useful for your research.

Expand the desired product category to view the recommended products. Product categories include:

- Controls
- Transfection Agents for miRNA Precursors & Inhibitors
- Reverse Transcription Reagents
- Real-time PCR Master Mixes
- Reporter Systems for Detection of miRNA-mediated Gene Regulation

Click the name of the product to open a new window that displays information about that product from the Applied Biosystems online catalog.

While viewing the products, you can modify the size and quantity of the product prior to adding it to your Shopping List. Simply click the “Add” button to add the desired products to your Shopping List.

Click the “Order Now” button at the top of the Shopping List (or the “Review & Order” arrow at the top of the screen) when you are ready to place your order.

The screenshot displays the GeneAssist™ miRNA Workflow Builder interface. At the top, there is a navigation bar with buttons for Home, Search, Product Details, Controls & Other Products (which is highlighted), and Review & Order. Below the navigation bar, there are 'Previous' and 'Next' navigation arrows. The main content area is titled 'Controls' and contains a list of product categories with expandable icons:

- Ambion® Anti-miR™ miRNA Inhibitors
- Ambion® Pre-miR™ miRNA Precursors
- TaqMan® MicroRNA Assays

The 'Ambion® Anti-miR™ miRNA Inhibitors' category is expanded, showing a table of products:

Ambion® Anti-miR™ miRNA Inhibitor Controls			
Positive			
Anti-miR™ hsa-let-7c miRNA Inhibitor Positive Control	5 nmol	1	Add
Anti-miR hsa-let-7c miRNA inhibitor blocks endogenous human and mouse let-7c miRNA, resulting in increased levels of HMGA2 mRNA. Effective delivery and activity of Ambion hsa-let-7c miRNA inhibitor can be monitored in human or mouse cells using TaqMan® Gene Expression Assay ID Hs00171569_m1 (Human) or Mm00780304_sH (Mouse).			
Negative			
Anti-miR™ miRNA Inhibitor Negative Control #1	5 nmol	1	Add
Labeled			
Cy™3 dye-labeled Anti-miR™ miRNA Inhibitor Negative Control #1	5 nmol	1	Add
FAM™ dye-labeled Anti-miR™ miRNA Inhibitor Negative Control #1	5 nmol	1	Add

Below the table, there are additional product categories with expandable icons:

- Transfections Agent for miRNA Precursors & Inhibitors
- Reverse Transcription Reagents
- Real-time PCR Master Mixes
- Reporter Systems for Detection of miRNA-mediated Gene Regulation

Review & Order

To order the products on your Shopping List, click the “Order Now” button at the top of the list at any time while you are shopping, or click the “Review & Order” arrow at the top of the screen. Then review your Shopping List as displayed in the center of the Review & Order screen. If necessary, modify product size and/or quantity.

Order Online

After reviewing your Shopping List, click the “Add to Basket” button. If you are not already logged in to the Applied Biosystems Store, you will be prompted to log in. If you are a new customer, simply click the “Register Now” button on the login screen.

Next, you will be prompted to choose a basket for your products. Choose an existing basket or create a new one. Click “Add to Basket” again.

Review the contents of your shopping basket, then click “Continue” to proceed with the order. On this screen, you also have the option of e-mailing the basket information to yourself or another person for future reference. Or you can send an XML version of the basket for uploading to an internal corporate purchasing system.

Provide your shipping/billing information and payment method. Click “Continue.”

Review your order one last time, and then click “Place Order.”

GeneAssist™ miRNA Workflow Builder

Home Search Product Details Controls & Other Products **Review & Order**

Please review your Shopping List below and make any desired modifications, then click "Add to Basket" to begin the purchasing process.

If not already logged in, you will be prompted to log in to the Applied Biosystems Store before adding products to basket. If you do not have a Store account, registration is quick and easy. Register with AB Store

Other Ordering Options: [Email to AB or any e-mail address.](#) [Print for fax/mail order or hardcopy record.](#) [Add To Basket](#)

TagMan® MicroRNA Assays				
Product ID	Product Name	Size	Quantity	Remove All
000291	hsa-miR-16	50 RT/150 TagMan® rxn	1	Remove

Ambion® Anti-miR miRNA Inhibitors				
Product ID	Product Name	Size	Quantity	Remove All
AM10339	hsa-miR-16	AM17000: 5 mg	1	Remove

Other Products				
Product Name	Size	Quantity	Remove All	
#POST™ NeoFix™ Transfection Agents	AM4511: 0.4 ml	1	Remove	

[Add To Basket](#)

order_help_email@appliedbiosystems.com.', 'Click Update Basket to update quantities and pricing.', and 'Newly registered users: Any applicable discount, tax and freight adjustments will be added to your order, but will not be displayed until after your registration is confirmed by Customer Service'. There is an 'Order Help' button. Below the text, there is a field 'Enter a Promotion/Quote:' with a search icon. Underneath, there is a message: 'My Basket01/36/2009 14:04:40 exp. 03/27/2009'. There are 'Email Basket' and 'Continue' buttons. A note says: 'Custom Products may not be cancelled. Please refer to our Order Cancellation and Return Policy'. Below this, there are 'Delete' and 'Update Quantity' buttons. The main part of the page is a table with columns: 'Select', 'Products', 'Part Number', 'Quantity', 'List Price', 'Your Price', and 'Extended Price'. The table contains one row: '1. hsa-miR-16' with part number 4373121, quantity 1, list price USD \$155.00, your price N/A, and extended price USD \$155.00. Below the table, there is a note: '(Estimated Ship Date: N/A)'. There is also a 'Select All' checkbox."/>

Shopping Basket: Applied Biosystems Inc. Store

- For ordering help please try the Order Help link, or call Order Administration 1.1, during business hours Monday - Friday: 9:00 AM to 5:00 PM Pacific Time, or e-mail us at order_help_email@appliedbiosystems.com.
- Click Update Basket to update quantities and pricing.
- Newly registered users: Any applicable discount, tax and freight adjustments will be added to your order, but will not be displayed until after your registration is confirmed by Customer Service

[Order Help](#)

Enter a Promotion/Quote:

My Basket01/36/2009 14:04:40 exp. 03/27/2009

[Email Basket](#) [Continue](#)

Custom Products may not be cancelled. Please refer to our [Order Cancellation and Return Policy](#)

[Delete](#) [Update Quantity](#)

Select	Products	Part Number	Quantity	List Price	Your Price	Extended Price
<input type="checkbox"/>	1. hsa-miR-16 Assay ID: 000291 Species: Human	4373121	1	USD \$155.00	N/A	USD \$155.00

(Estimated Ship Date: N/A)

Alternate Ordering Methods

On the “Review & Order” screen, instead of clicking “Add to Basket,” click on one of the alternative ordering options:

E-mail to AB or any e-mail address: E-mail your order information to the e-mail address of your choice. You may wish to send this information to your local Applied Biosystems sales office or dealer, purchasing agent, or yourself. To send to your local sales office or dealer, simply select your country from the drop-down menu below the contact information box; the correct “To” e-mail address will be supplied for you. To send the information elsewhere, simply replace the sales office/dealer e-mail address with the e-mail address of your choice. If you send the information to Applied Biosystems, you should receive an e-mail reply from a sales representative within 1-2 business days.

Print for fax/mail order or hardcopy record: Select this option to print your order information. You may then fax this information, along with your contact and payment information, to your local Applied Biosystems sales office. To fax this information to Applied Biosystems, select your country from the drop-down menu at the top of the page to view the proper faxing information.

To place an order by phone, visit www.appliedbiosystems.com/about/contact to find the phone number for your country. When calling, be ready to supply the part number, product ID, size, and quantity for each product ordered, as well as your full contact and payment information. To print a copy of the product information for reference while calling, follow the “Print to Fax” instructions above.

Your Name:

Your E-mail:

Shipping Address:

Billing Address:

Payment: Purchase Order P.O. Number

Credit Card Phone Number

We will contact you at this number for payment information, Please DO NOT enter your credit card number.

Comments:

Select your country:

United States

To Sales Office or Dealer E-mail:

Basket name: New

Shopping List (1 item)

Silencer [®] Select siRNA								
GeneID	Gene Symbol	Gene Name		Species				
512	BAD	BCL2-antagonist of cell death		Human				
Part #	siRNA ID#	Type	Availability	Purity	Size	Quantity	List Price	
4390824	s1861	validated	Inventoried	STD	5 nmol	1	\$350.00	

To send an order by mail, visit **www.appliedbiosystems.com/about/contact** to find the mailing address for your country. In your letter, include a copy of the printed order information, as well as your full contact and payment information. Print your product information by following the “Print to Fax” instructions above.

Note that TaqMan® MicroRNA Assays, Ambion® Pre-miR™ miRNA Precursors, and Ambion® Anti-miR™ miRNA Inhibitors are identified by both a part number and an ID number. Both numbers are required for ordering.

For Research Use Only, not for use in diagnostic procedures.

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TaqMan is a registered trademark of Roche Molecular Systems.

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