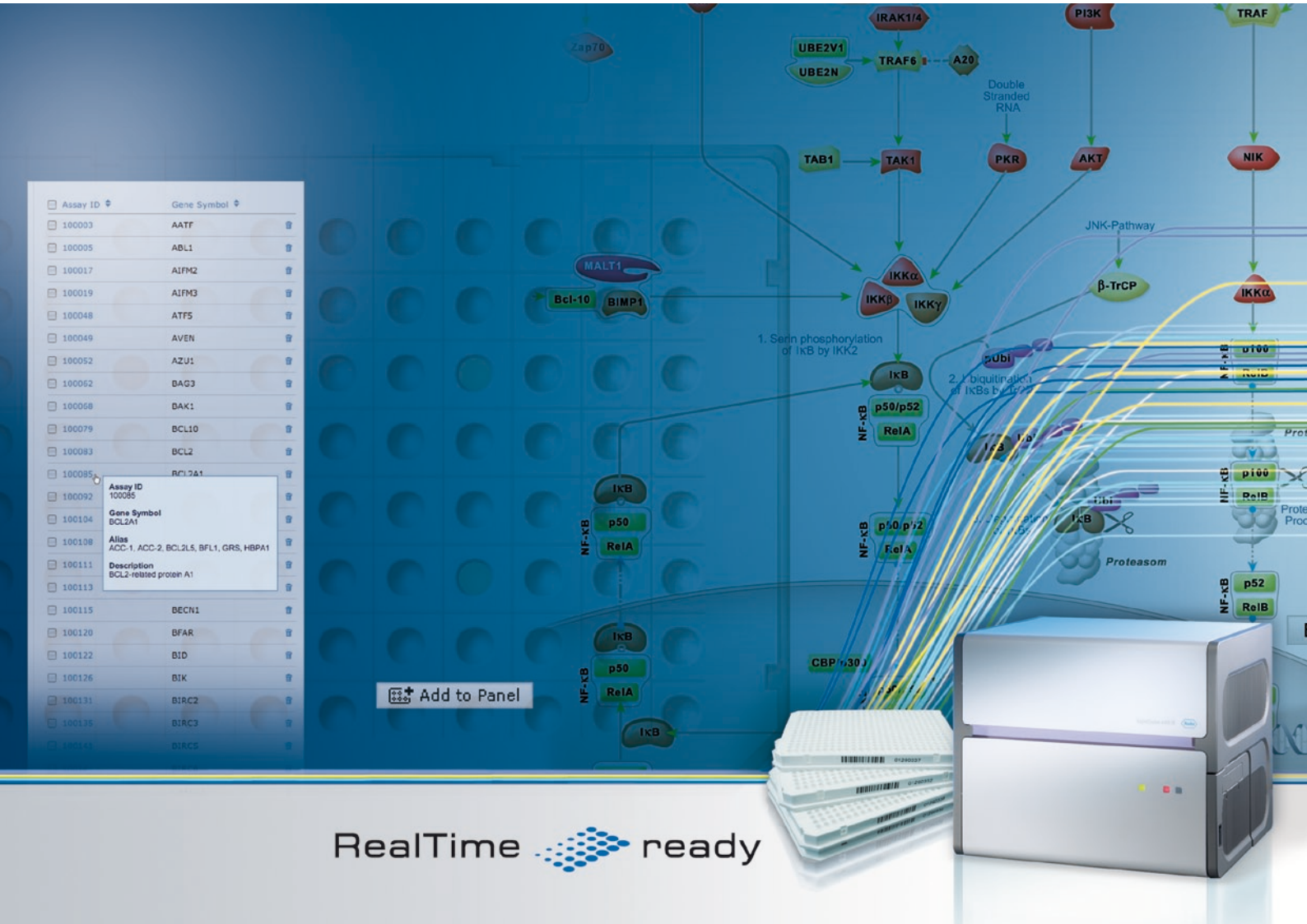
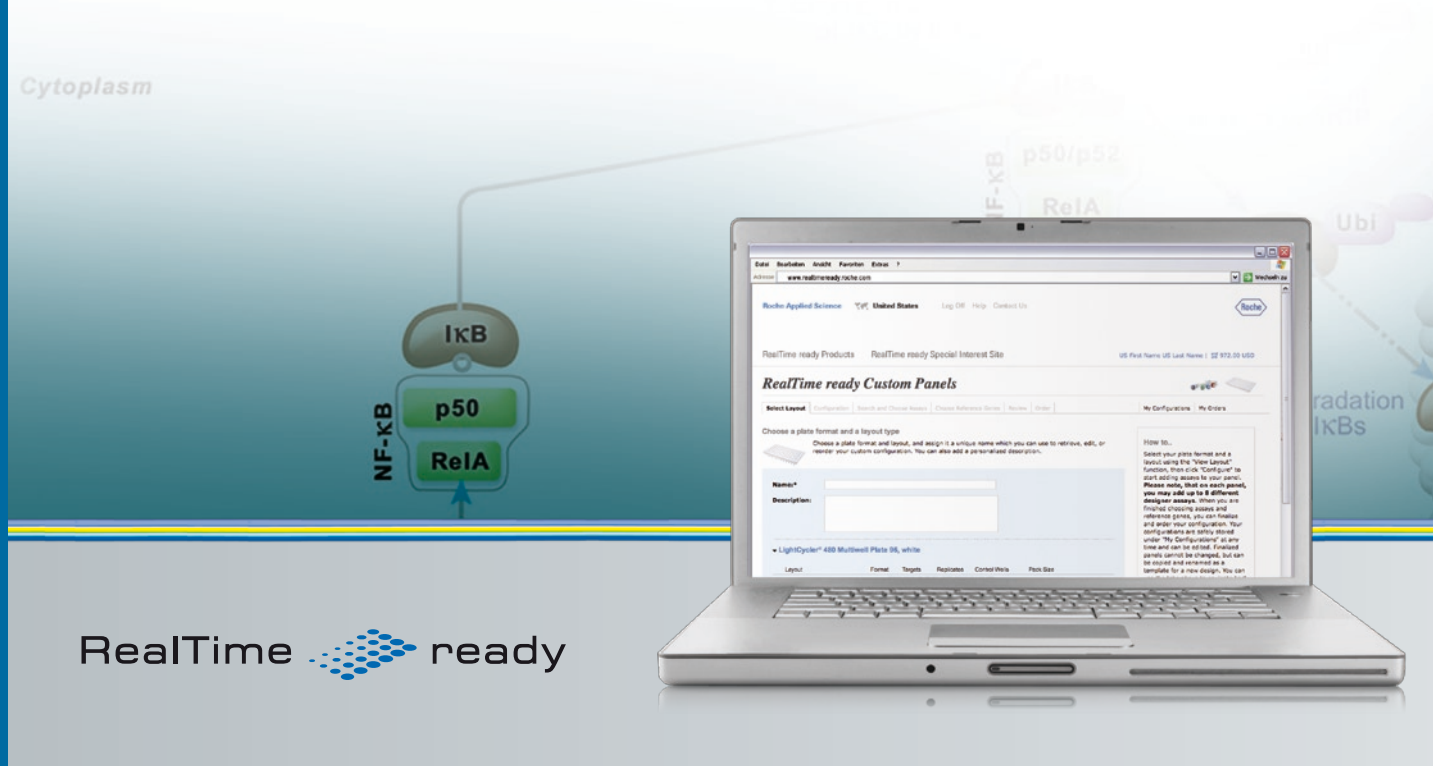
RealTime ready

Custom qPCR Assays and Panels -
simple online configuration and ordering



Function tested qPCR assays for human targets of your choice enable expression profiling of your genes of interest in the context of complex biological pathways or other functionally related groups of genes.



RealTime ready

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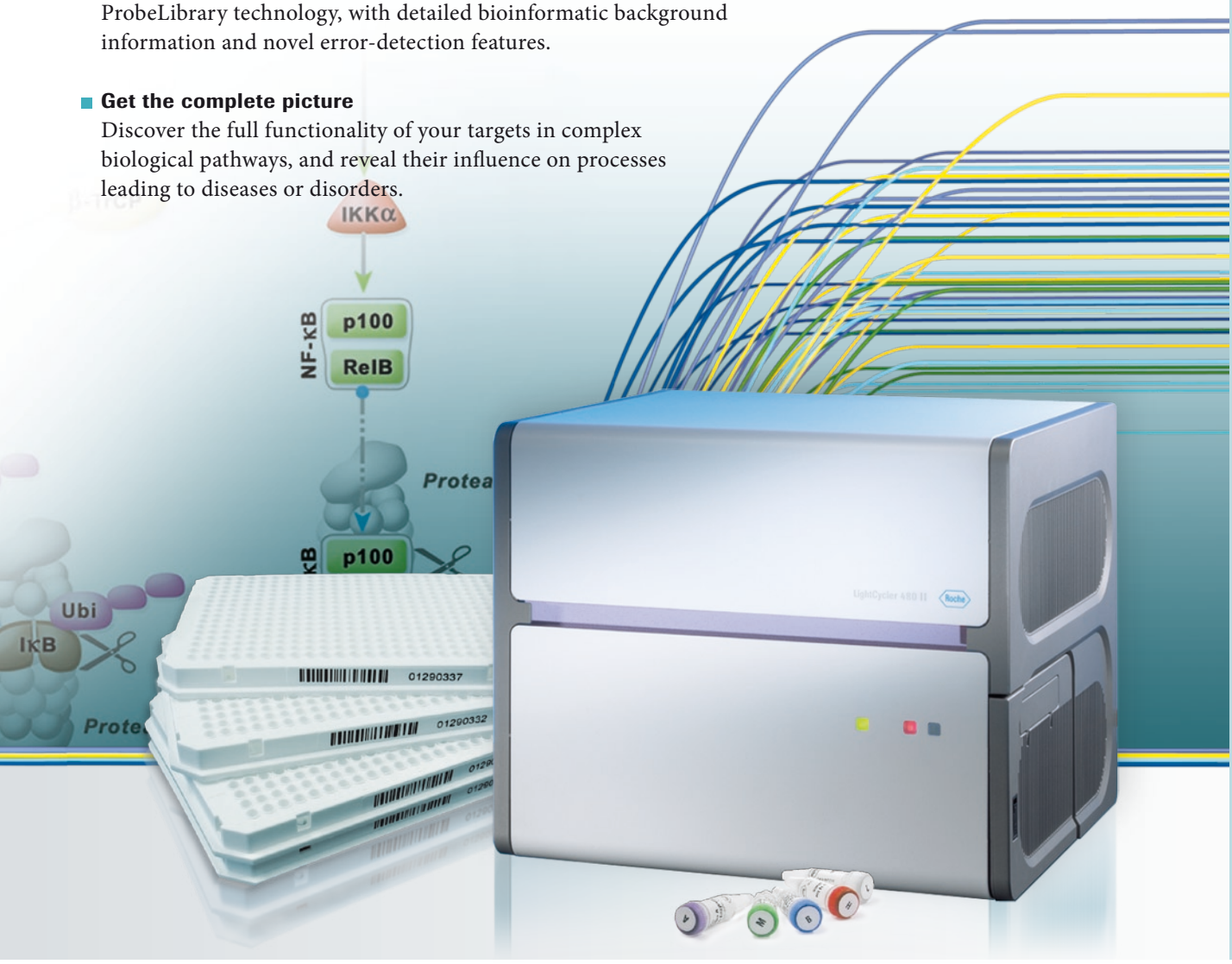
Complex Gene Expression Analysis, Made Simple

- **Maximize efficiency**
  Select assays for your targets of choice out of gene lists of functionally related gene families or biological pathways. Order them as single assays or configure your own custom panel on a LightCycler® 480 Multiwell Plate.

- **Ensure optimal results**
  Rely on function tested qPCR assays based on proven Universal ProbeLibrary technology, with detailed bioinformatic background information and novel error-detection features.

- **Get the complete picture**
  Discover the full functionality of your targets in complex biological pathways, and reveal their influence on processes leading to diseases or disorders.



RealTime ready qPCR Assays and Panels

Gene expression profiling of the human genome on the LightCycler® 480 System has never been so easy

Rapidly and flexibly quantify the expression levels of your targets of interest with ready-to-use RealTime ready qPCR Assays. You can select and order single assays for any human target or configure your custom panel with the selected assays on the free, online RealTime ready Configurator. Alternatively, you can simply rely on our pre-configured RealTime ready Focus Panels with a broad range of selected genes from specific pathways or functional groups.

RealTime ready qPCR Assays

RealTime ready qPCR assays each contain target-specific primers and a Universal ProbeLibrary probe. Each assay is qualified after the design process to function in qPCR on the LightCycler® 480 Instrument using a universal biological sample under standard PCR conditions with the LightCycler® 480 Probes Master. Each assay must comply with the following stringent criteria:

- **Linear dynamic range of at least 3 logs**
- **PCR efficiency of 2.0**
- **R^2 value of standard curve between 0.99 and 1.00**
- **High amplification specificity, no side products in gel analysis**

RealTime ready assays, like all UPL assays, can be used successfully on any real-time PCR Instrument. For best performance, we recommend using RealTime ready DNA Probes Master.

Triplicate analysis shows almost identical CP values and consistent distances in the dilution series

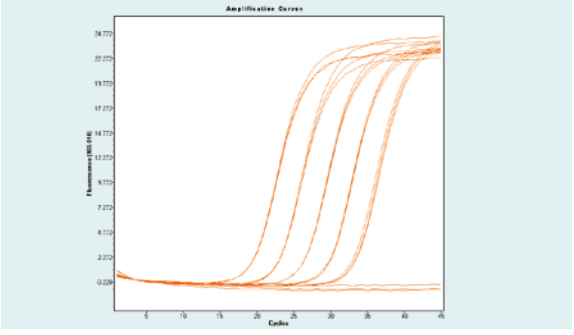


Figure 3: Dilution series of 50ng to 5 pg of the Human RAN/RANPI gene, analyzed in triplicates.

No side products detected in agarose gel analysis

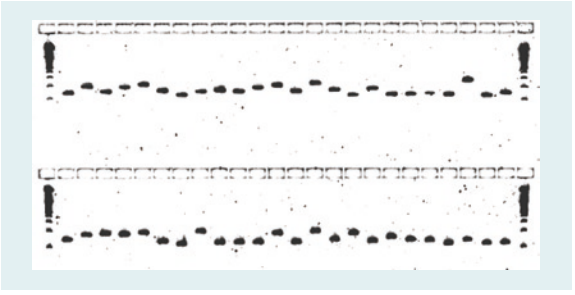


Figure 1: 48 RealTime ready Assays of the Human GPCR gene family.

Linearity of amplification over five 10-fold dilution steps with efficiency values of 99.2 to 100 %.

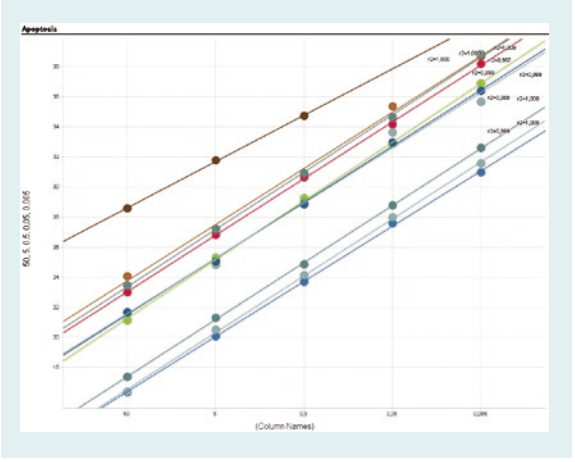


Figure 2: Linearity plot (Cp vs log concentration) over five 10-fold dilution steps for 12 assays from the Human Apotosis Pathway.

Assay Search and Ordering

Use the Configurator to select and order RealTime ready Catalog Assays (300 reactions of 20 µl each), for human targets of your choice; if no Catalog Assay is available, we will design and test a Designer Assay for you.

Assay Technology

RealTime ready Assays are based on the Universal ProbeLibrary (UPL) technology. UPL probes are short hydrolysis probes, labeled at the 5' end with fluorescein (FAM) and at the 3' end with a dark quencher dye. In order to maintain the specificity and melting temperature that hybridizing qPCR probes require, Locked Nucleic Acids (LNA) are incorporated into the sequence of each UPL probe (Fig. 4). The highly specific RealTime ready Assays can therefore be used under standard PCR conditions on all real-time PCR systems.

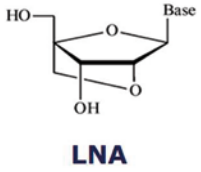


Figure 4: UPL probes incorporate LNA nucleosides. Locked Nucleic Acids are a class of nucleic acid analogs where the ribose ring is "locked" with a methylene bridge connecting the 2'-O atom with the 4'-C atom. The locked ribose conformation anhances base stacking and backbone pre-organization, increasing thermal stability and discriminative power of duplexes. LNAs discriminate single base mismatches under conditions not possible with other nucleic acids.

Assay Design Characteristics

RealTime ready Assays are designed using the established Universal ProbeLibrary ProbeFinder Software, which is based on verified design algorithms. For a particular gene, one unique transcript is chosen for assay design. The selection of this representative transcript is based on annotation and cross references within two of the main public gene/transcript annotation resources, **Ensembl** and **Entrez Gene**. If possible, an intron-spanning assay is designed. This procedure is thought to detect a broad range of splice variants of a certain gene. Almost any gene, protein, transcript, sequence ID, or probe ID may be used as a search term. The annotations are based on the GRCh37 gene build released by the **Genome Reference Consortium**. The "Search Tips" on the Configurator provide a detailed description of individual IDs and search functionality.

Ensembl
(http://www.ensembl.org)

Entrez Gene
(http://www.ncbi.nlm.nih.gov/sites/ntrez?db=gene)

Genome Reference Consortium
(http://www.ncbi.nlm.nih.gov/projects/genome/assembly/grc/index.shtml)

RealTime ready Custom Panels for the LightCycler® 480 System

Custom panels on LightCycler® 480 Multiwell Plates 96 or 384 are composed of RealTime ready Assays of your choice. A multitude of different layouts (Fig. 5, 6) is available for configuration. Assays are pre-plated and dried-down for a reaction volume of 20 µl on 96-well plates and 10 µl on 384-well plates; simply add sample cDNA and RealTime ready DNA Probes Master for fast and reliable results.

On each panel, up to three wells are reserved for reference gene assays of your choice. In addition, most panel layouts feature a pre-plated error detection concept.

The detailed configuration guide on page 15 shows how to easily populate your panels in a large variety of layouts with the assays of your choice. Alternatively, visit www.realtimeready.roche.com to view a short video demonstration and obtain a wealth of additional information.

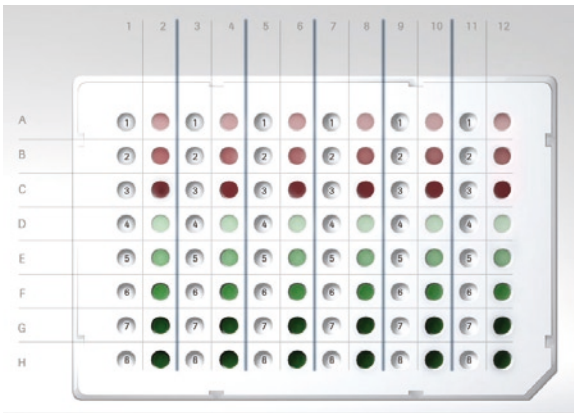


Figure 5: RealTime ready Custom Panel 96-16+

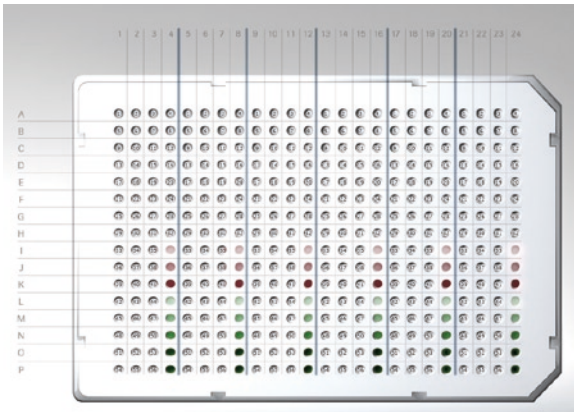


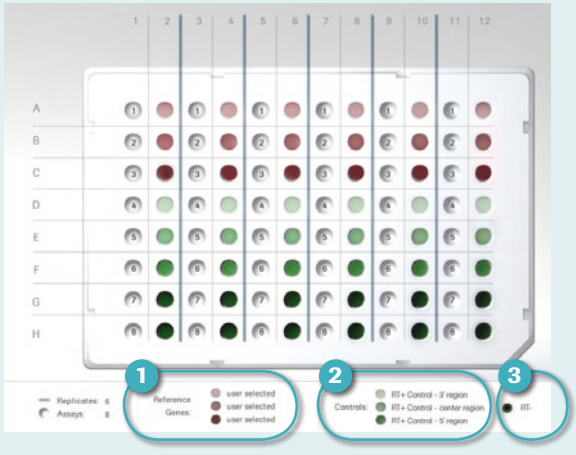
Figure 6: RealTime ready Custom Panel 384-64+

Error Detection Feature

1 Reference Genes are mandatory controls on each custom panel and need to be selected during the custom panel configuration.process.

2 RT positive control checks for degradation of initial RNA and the quality of the RT step. It consists of three assays, each targeting different positions of the same transcript: 3´-end, center region, and 5´-end.

3 RT minus control detects residual genomic DNA. It consist of two identical assays in two wells: the first well is for the cDNA sample and the second well is for the RNA sample.



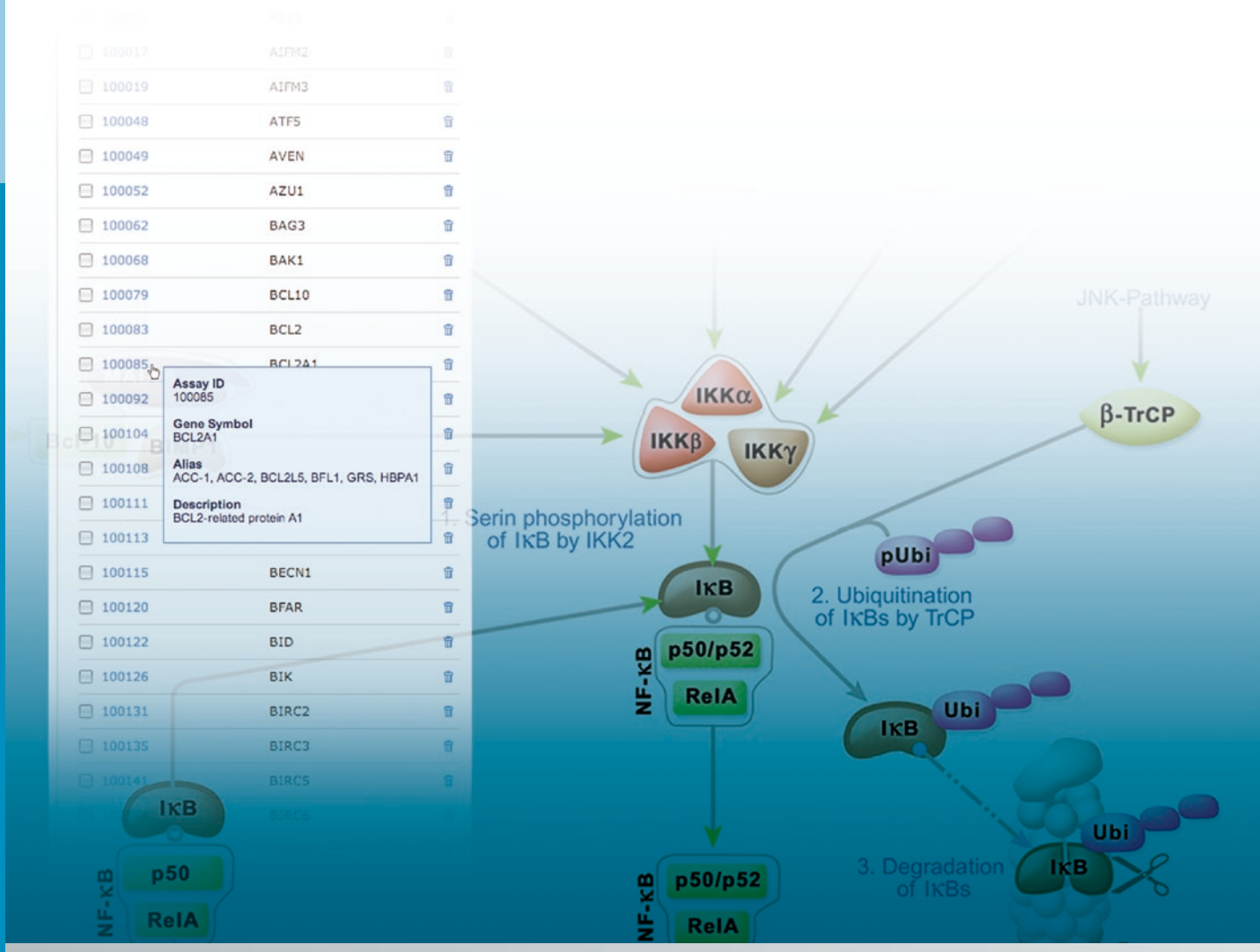
RealTime ready Focus Panels – Pre-Configured and Ready-to-Use

RealTime ready Focus Panels are designed for expression profiling of genes from a variety of pathways, functional groups, or gene superfamilies. Ready-to-use, function tested qPCR assays are conveniently pre-plated and dried-down on LightCycler® 480 Multiwell Plates 96 or 384. The only components that need to be added are sample cDNA and LightCycler® 480 Probes Master reaction mix. For each panel, the layout and content can be downloaded from the internet to the Sample Editor of the LightCycler® 480 Software. Each panel contains five reverse-transcription (RT) controls for RNA quality: three RT-positive controls to check the quality of the reverse transcription step, and two RT-minus controls to check for residual genomic DNA. Seven reference gene assays serve as PCR controls and also enable the user to perform relative quantification of the target genes. Select from the following RealTime ready Focus Panels:

- **Human Reference Gene Panel, 96 and 384**
- **Human Cell Cycle Regulation Panel, 96 and 384**
- **Human Apoptosis Panel, 96**
- **Human Apoptosis Panel, 384**
- **Human ABC Transporter Panel, 96 and 384**
- **Human Nuclear Recepter Panel, 96 and 384**

RealTime ready Configurator

Function tested qPCR assays and custom panels are now only a few clicks away. Use this free online configuration and shopping tool to search and order single assays or to configure your own custom panels with assays of your choice.



www.realtimeready.roche.com

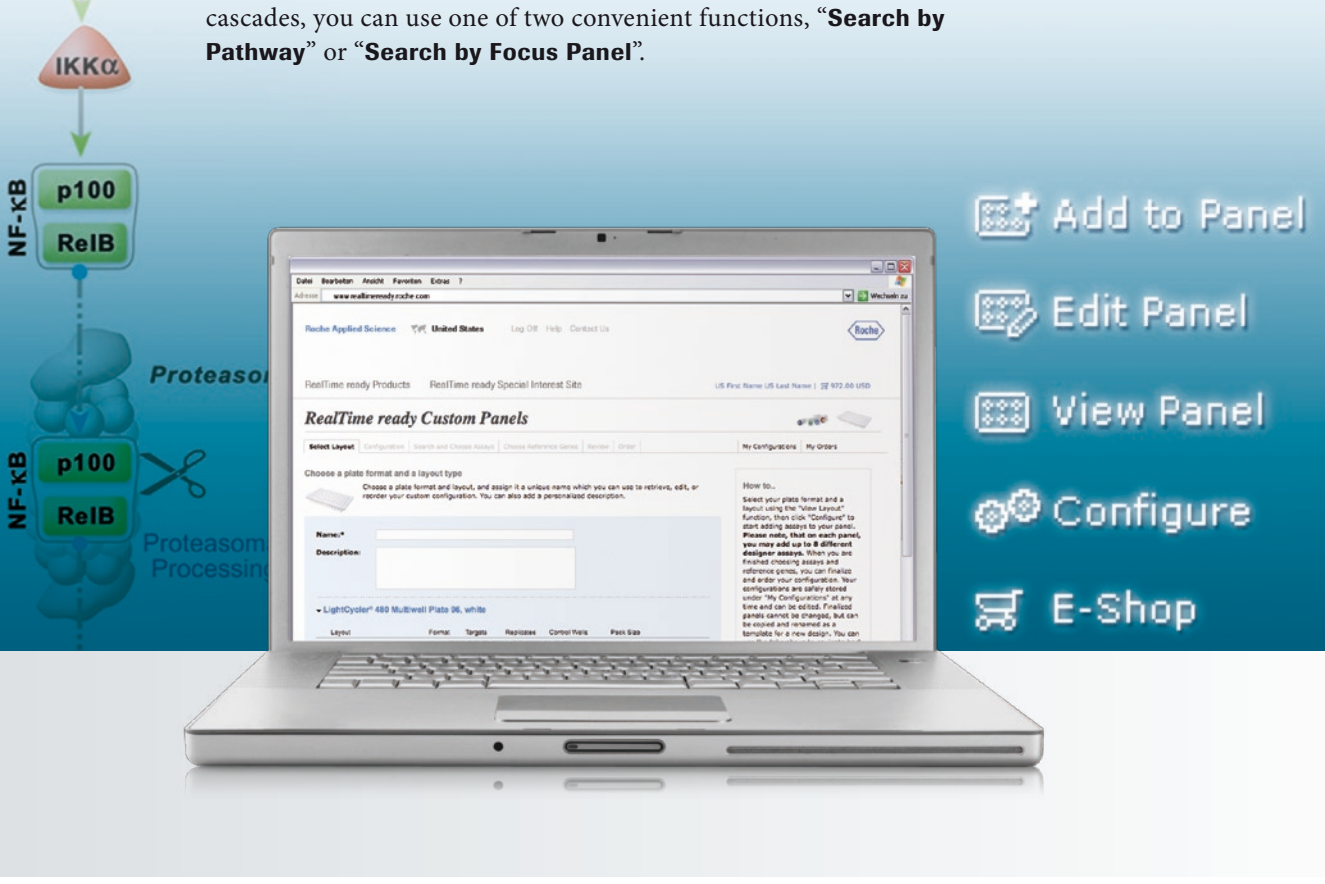
Graphical Panel Configuration

The RealTime ready Configurator features an intuitive graphical interface. A large variety of layouts (with or without controls) can be simply filled with assays of your choice. Your changes and edits during the configuration process are automatically stored in your password-protected account at every step; your panel content will be available for download after your purchase is completed.

Search Functions

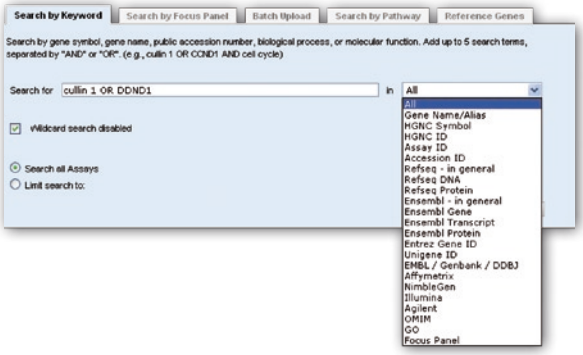
Assay selection and configuration of custom panels is easy with the comprehensive search functions of the RealTime ready Configurator.

- When you want to order a few single assays or configure layouts with a small number of assays, use the "**Search by Keyword**" option to enter up to five search terms at a time.
- When you want to search for a large number of targets that you have already selected, you can use the "**Batch Upload**" option.
- When you want to study regulation of larger gene groups after knockouts or after cell line treatments that influence certain pathways or signaling cascades, you can use one of two convenient functions, "**Search by Pathway**" or "**Search by Focus Panel**".



Search by Keyword

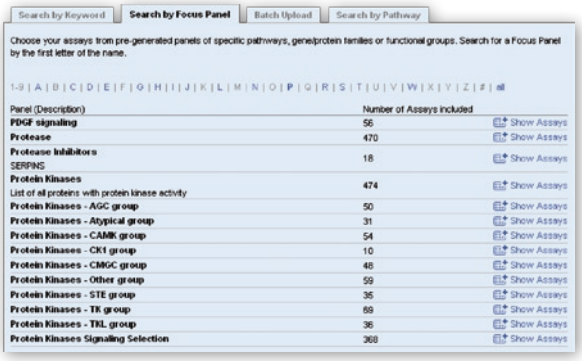
This search function provides you with a variety of options to find assays for up to 5 target genes in one search. You can search by gene name, gene symbol, public accession IDs, biological process, protein function, or a combination of up to 5 keywords.



- Keywords can be single words or short sentences/phrases. Keywords separated by a space are interpreted as exact phrases. Keywords can be refined with the operators AND or OR. For example, 'apoptotic AND inducer' will produce one result for ACIN1 (the 'apoptotic chromatin condensation inducer 1') whereas 'apoptotic inducer' will produce no hits, as the exact phrase is not contained in the description.
- When using both AND and OR in your search, note that 'AND' takes priority over 'OR' in order of operation. For example, 'cullin 1 OR CCND1 AND cell cycle' will be interpreted as
  1. Find genes containing 'cullin 1'
  2. Find genes containing 'CCND1 AND cell cycle'
- You can limit the search to certain ID or accession number contexts to get faster and more refined results.
- You can use the "wild card" search option to increase your number of hits and maximize the flexibility of your search. For more information, the "Search Tips" in the RealTime ready Configurator provide detailed assistance for using the "Search by Keyword" function.

Search by Focus Panel Lists

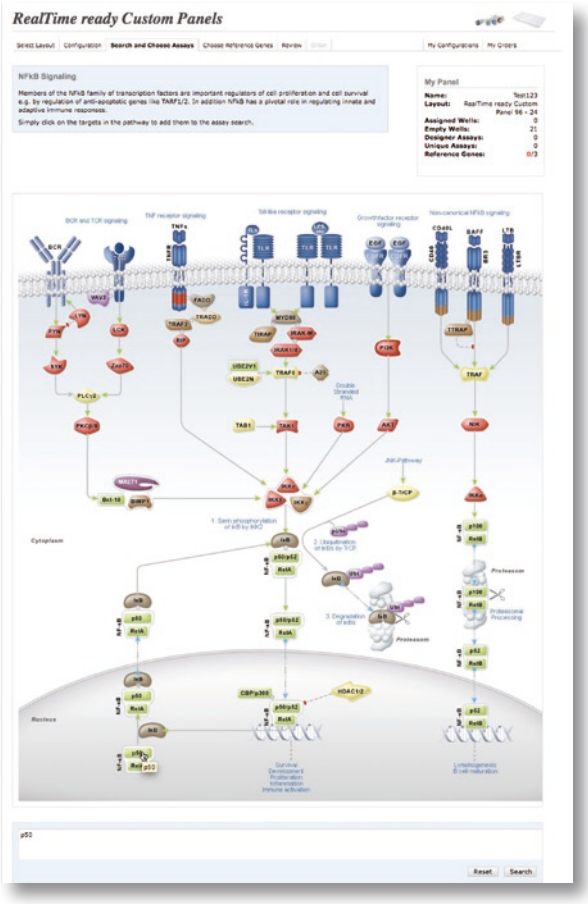
With the "Search by Focus Panel" function you can configure your own custom Focus Panel by searching a large number of pre-selected targets of relevant gene superfamilies, such as GPCR, protein kinases, or functionally related groups such as transcription factors or ion channels. This function is also helpful when you just want to modify a RealTime ready Focus Panel with targets of your specific interest.



The tutorial video on www.realtimeready.roche.com walks you through the features and search functions of the RealTime ready Configurator.

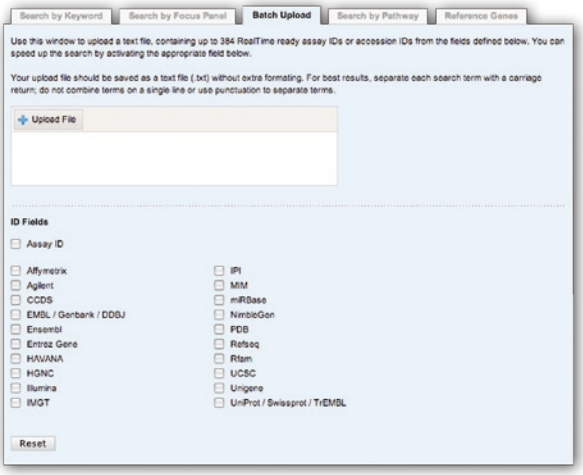
Search by Pathway

The “Search by Pathway” function allows you to select your targets from a variety of interactive maps of cellular or signaling pathways. These maps immediately reveal possible interactions of your selected targets with other genes. Simply click on the genes of interest to add them to your assay search.



Search by Batch Upload

Use the “Batch Upload” option to upload up to 384 different assay or accession IDs directly into the assay search process.
An upload file must have one ID per line.
A maximum of 384 lines are processed. IDs and accession numbers of various origins may be combined in one file.
You can use accession IDs from the fields listed below for Batch Upload. We recommend using as few different ID types as possible and activating only the appropriate fields for the search in order to get more concise search results (*e.g.*, providing a list of HGNC IDs and applying the filter accordingly will omit any search results where the HGNC ID matches, for example, EntrezGene ID by chance).



Search Results

In the search results, all genes matching your search term are listed with the gene symbol, aliases, and description, together with the relevant part of your query. If there is already a RealTime ready Assay available for that gene, the transcript accession number that was used for assay design is also provided. For each assay, additional detailed information is provided about the assay and its target, such as the exact location of the assay on the transcript. In case no RealTime ready Catalog Assay is available yet, you can order a Designer Assay for this specific target gene. Assay details will then be provided after the assay has been produced.

Your search by Focus Panel **"Focus Panel MD 1"** **1-10 of 100 Results** Results per page 10

1 | 2 | 3... 10 next >

Assay ID	Gene Symbol	Alias	Description	Transcript	
100003	AATF	CHE-1, CHE1, DED	apoptosis antagonizing transcription factor	ENST00000225402	Details Add to List
100005	ABL1	ABL, bcr/abl, c-ABL, JTK7, p150, v-abl	c-abl oncogene 1, receptor tyrosine kinase	ENST00000372348	Details Add to List
100015	AIFM1	AIF, PDCD8	apoptosis-inducing factor, mitochondrion-associated, 1	ENST00000319908	Details Add to List
100017	AIFM2	AMID, FLJ14497, PRG3	apoptosis-inducing factor, mitochondrion-associated, 2	ENST00000373248	Details Add to List
100019	AIFM3	AIFL, FLJ30473, FLJ45137	apoptosis-inducing factor, mitochondrion-associated, 3	ENST00000399167	Details Add to List
100005	ABL1	ABL, bcr/abl, c-ABL, JTK7, p150, v-abl	c-abl oncogene 1, receptor tyrosine kinase	ENST00000372348	Details Add to List
100015	AIFM1	AIF, PDCD8	apoptosis-inducing factor, mitochondrion-associated, 1	ENST00000319908	Details Add to List
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100019	AIFM3	AIFL, FLJ30473, FLJ45137	apoptosis-inducing factor, mitochondrion-associated, 3	ENST00000399167	Details Add to List
100005	ABL1	ABL, bcr/abl, c-ABL, JTK7, p150, v-abl	c-abl oncogene 1, receptor tyrosine kinase	ENST00000372348	Details Add to List
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100019	AIFM3	AIFL, FLJ30473, FLJ45137	apoptosis-inducing factor, mitochondrion-associated, 3	ENST00000399167	Details Add to List
100005	ABL1	ABL, bcr/abl, c-ABL, JTK7, p150, v-abl	c-abl oncogene 1, receptor tyrosine kinase	ENST00000372348	Details Add to List
100015	AIFM1	AIF, PDCD8	apoptosis-inducing factor, mitochondrion-associated, 1	ENST00000319908	Details Add to List

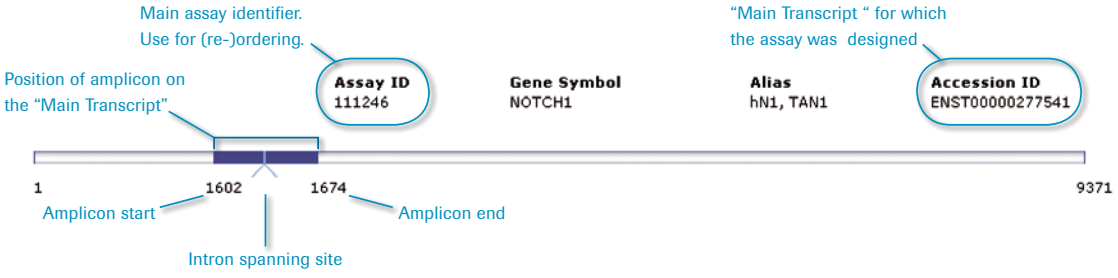
Assay Details

For each RealTime ready Assay, the following graphical information is provided:

- Accession ID of the transcript for which the assay was designed
- Postion of the amplicon on this transcript
- Amplicon length
- Intron/exon boundaries for intron-spanning assays

For assay design, the most representative or "main" transcript for an individual gene is identified ("Assay Design Characteristics" on page 5). Therefore, RealTime ready Assays are ideally suited for standard gene expression quantification experiments.
The base-precise location of the assay on other splice variants represented by Ensembl or RefSeq transcripts is shown under the "Transcript Information" on the Assay Details page.
Probe IDs from Affymetrix, Illumina, and NimbleGen gene expression arrays that match any transcripts of a gene for which the assay was designed are listed under "Array Platform IDs".

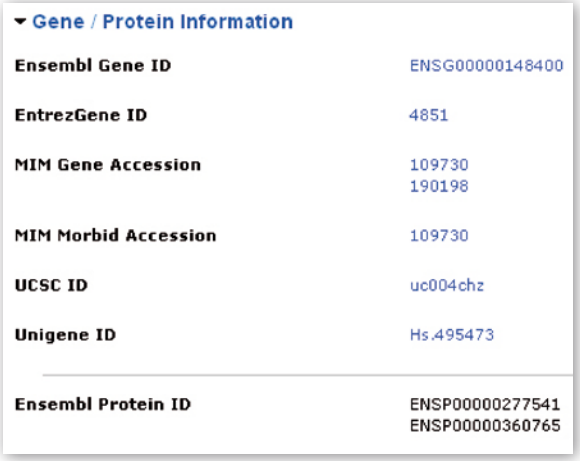
Detailed annotation information is also listed for the respective target on the "Assay Details" page.



Intron Spanning / Position:	Yes / 1632
Amplicon Length:	73
Description:	Notch homolog 1, translocation-associated (Drosophila)
HGNC (curated):	NOTCH1

Gene/Protein Information

Gene and protein IDs associated with any transcript of the gene for which the assay was designed are listed, along with links to the information on the respective databases (if applicable).

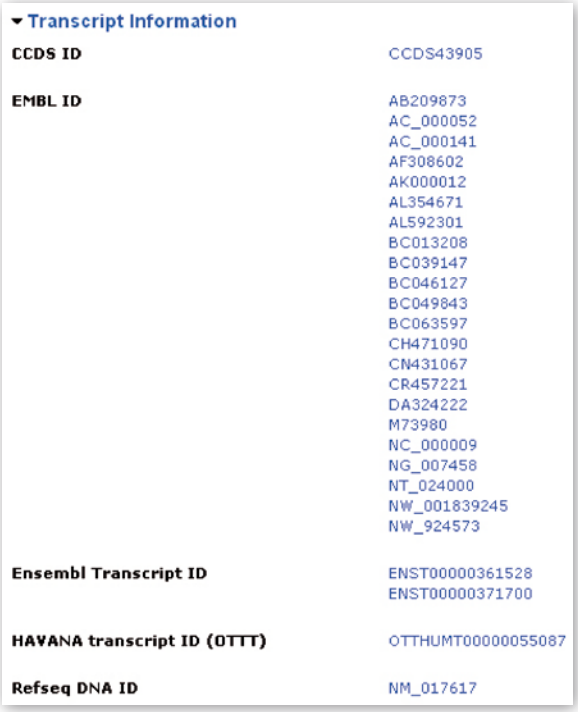


Array Platform IDs

Probe IDs annotated to the respective gene for which the assay was designed are listed, along with links to information on the respective databases.

Transcript Information

In concordance with "Gene/Protein Information", the "Transcript Information" section lists all transcripts associated with the gene for which the assay was designed. If applicable, all listed IDs provide a link to information on the respective databases. Whenever an assay covers an Ensembl or RefSeq transcript, additional precise assay mapping positions are provided. Any potential splice variant specificity of a RealTime ready Assay can thus be deduced.



In addition, the different categories (*e.g.* Biotype, Codelink, HGNC ID) matching the transcripts are provided as well as the complete GO annotation of the gene detected by the RealTime ready Assay.

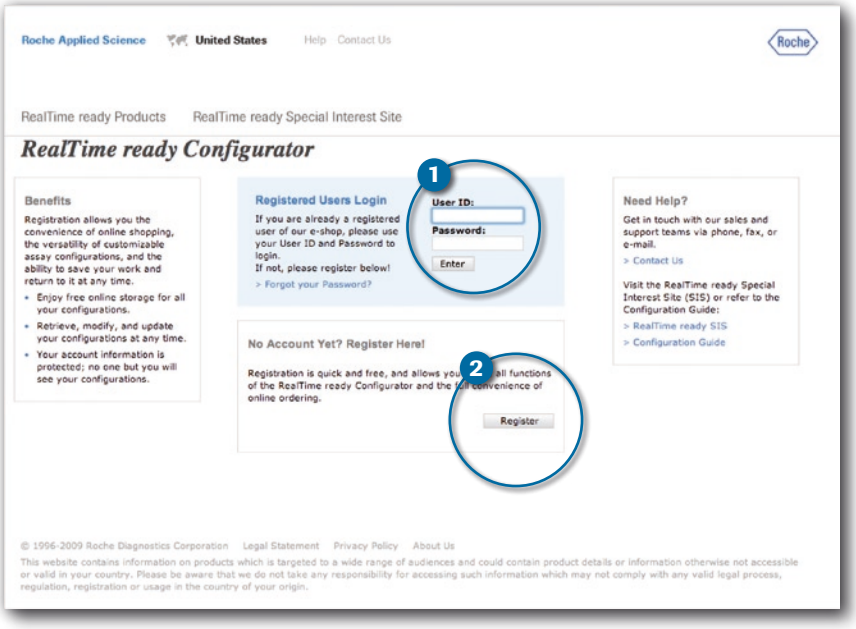
RealTime ready Configuration Guide

This tutorial shows you how to search for assays, configure a custom panel, use your custom database, and order your custom products.

How to Start

Logging In

Simply log in with your user ID and password from the Roche Applied Science e-shop 1, or create a new e-shop account 2.



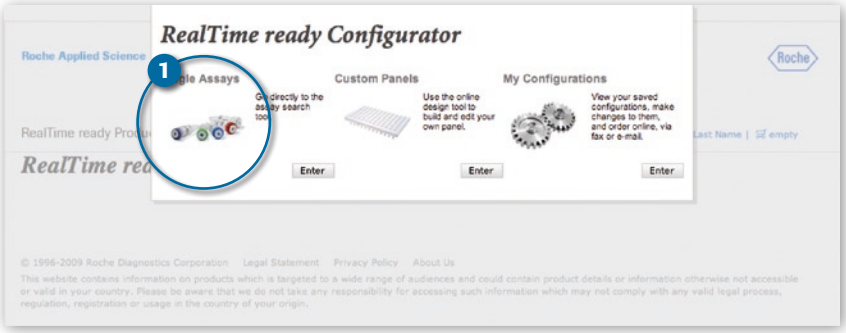
Logging into your Configurator account is required for online ordering and secure storage of your assay selections and panel configurations.

Selecting the Operating Mode

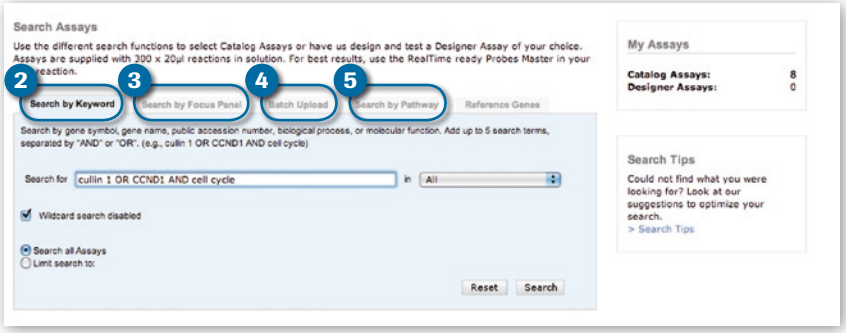
After logging in, the workflow selection window shows three options: Single Assays 3, Custom Panels 4, and My Configurations 5.

Search Assays

Select a Search Function

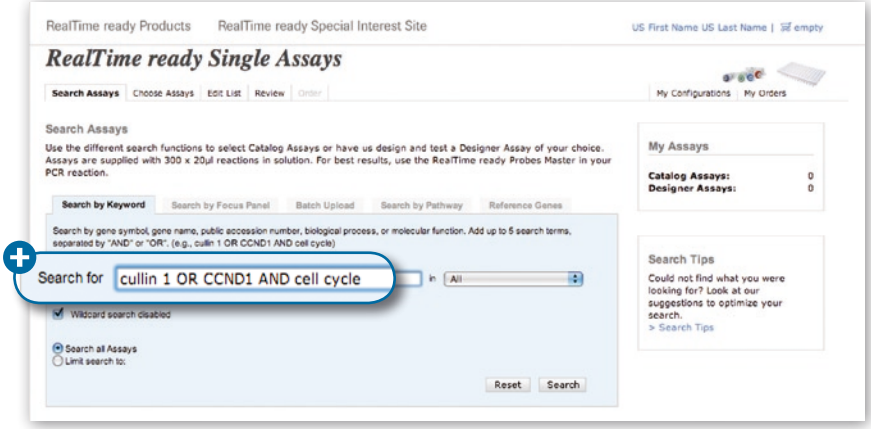


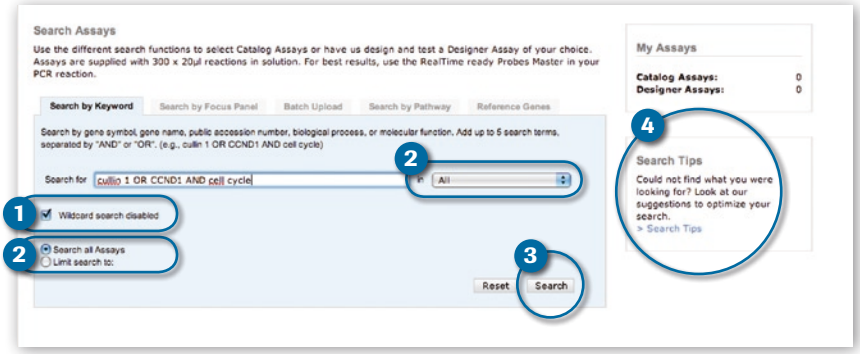
Selecting "Single Assays" 1 leads you directly to the " Search Assays" page. Choose your preferred search function by clicking tabs 2 - 5.



Search by Keyword

This search function allows you to enter up to five search terms in any combination from any or all of the following five categories: gene symbol, gene name, public accession ID number, biological process, or molecular function.





When you want to limit your search to assays for a gene containing all the keywords, type "AND", in full capitals, between each search term (*e.g.*, "CCND1 AND cell cycle").

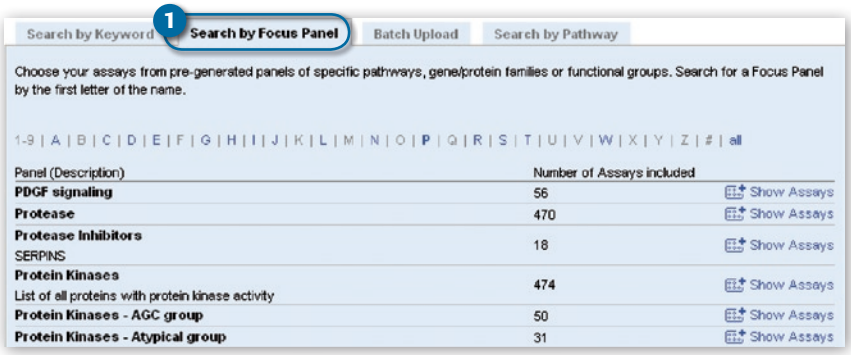
When you want to perform a broader search for all genes that contain any of the keywords, type "OR", again in full capitals, between the search terms (*e.g.*, "CCND1 OR cell cycle").

Use the asterisk character as a 'wildcard', or placeholder character, to produce a more general search. When using *e.g.*, CCN*, you will find all gene names beginning with the keyword CCN. Note that wildcard searching is disabled by default.
To activate wildcard searching, uncheck this box 1.

To speed up your search, you can limit the search to different search fields 2.

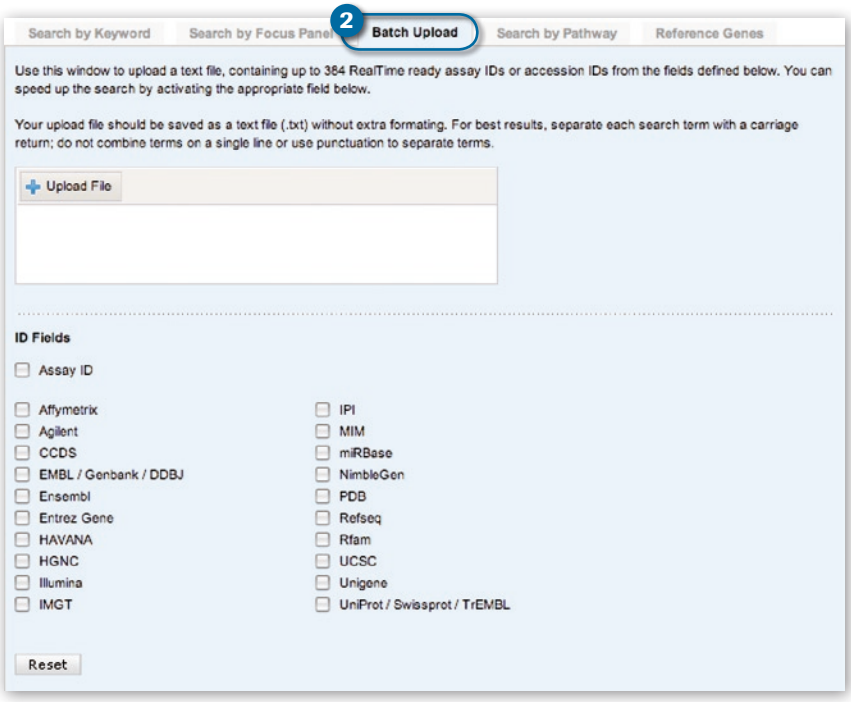
Start your search by clicking the "Search" tab 3. If you have difficulties, use the "Search Tips" box 4 to get helpful information about the search fields.

Search by Focus Panel



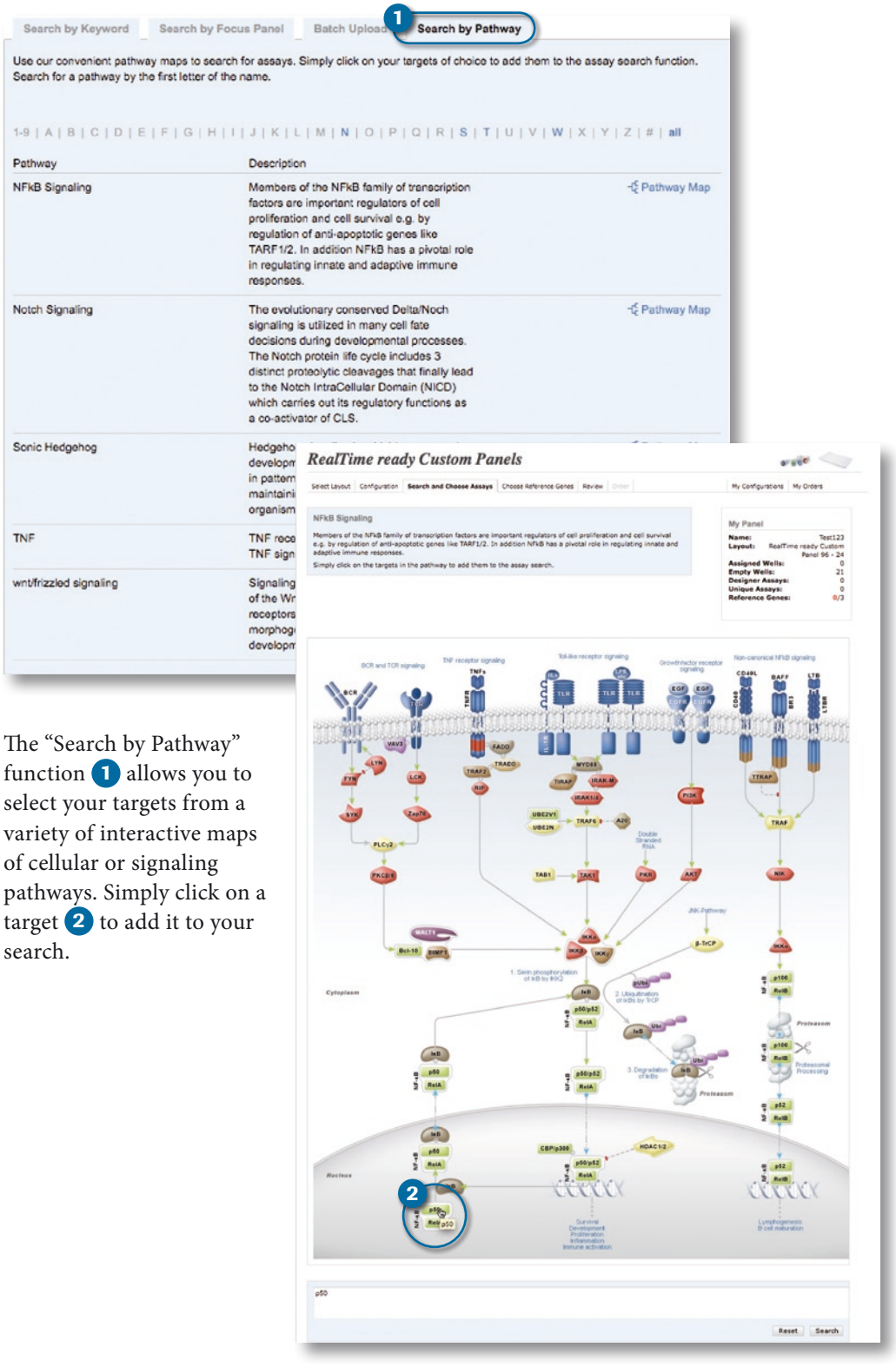
The "Search by Focus Panel" function 1 allows you to search a large number of pre-selected targets of relevant gene superfamilies, such as GPCR, protein kinases, or functionally related groups, such as transcription factors and ion channels.

Batch Upload



The "Batch Upload" function 2 allows you to upload a text file (.txt) that specifies your targets in the form of accession ID's from defined fields, or RealTime ready Assay IDs. Separate each search term with a carriage return. Do not combine terms on a single line, or use punctuation to separate terms.

Search by Pathway



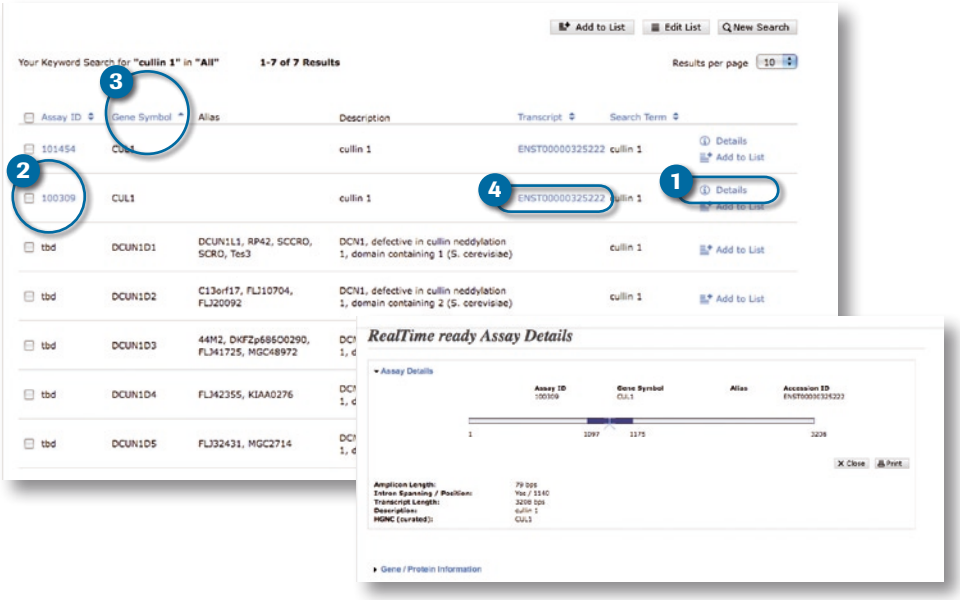
The “Search by Pathway” function 1 allows you to select your targets from a variety of interactive maps of cellular or signaling pathways. Simply click on a target 2 to add it to your search.

Single Assay Selection and Ordering

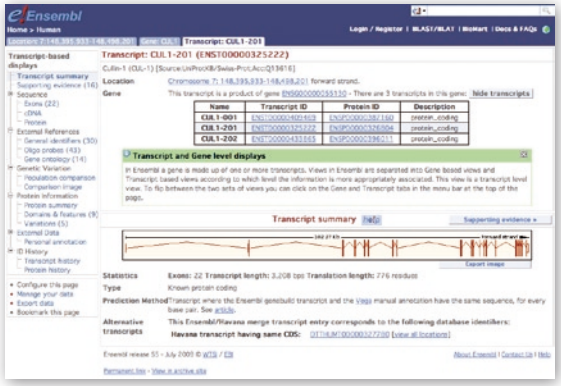
Search and Choose Assays

Depending on the type of search you have selected, you will get a list of assays matched to your search terms. If no matching Catalog Assay is available, the result is marked with ”tbd”, which means Roche will design and test an appropriate RealTime ready Assay for you.

Catalog Assays are accompanied by detailed information. For any displayed assay, the “Details” 1 or “Assay ID” 2 links provide you with an overview of the assay details, including primer-probe location on the transcript, amplicon and transcript length, and intron/exon spanning positions.
For a detailed description, please see page 13.

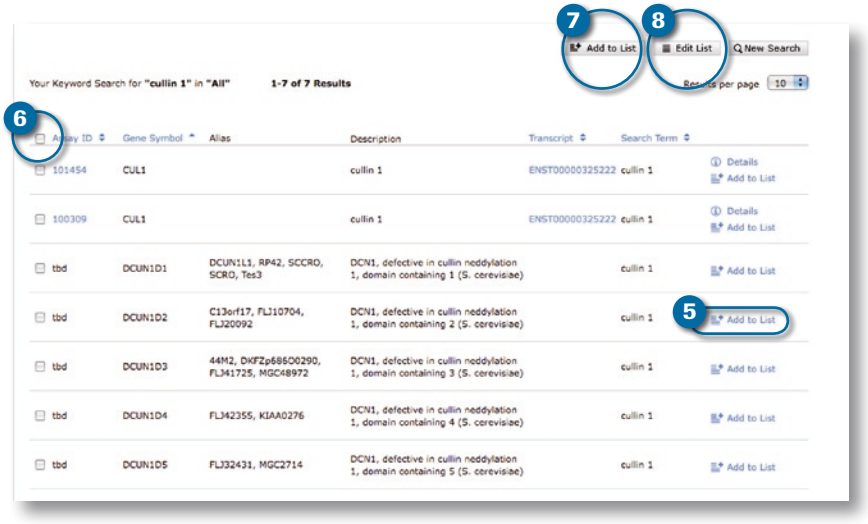


Click on the small arrows 3 to sort the content of these tabs. Clicking on the Transcript 4 leads directly to the Ensembl database for more detailed information.

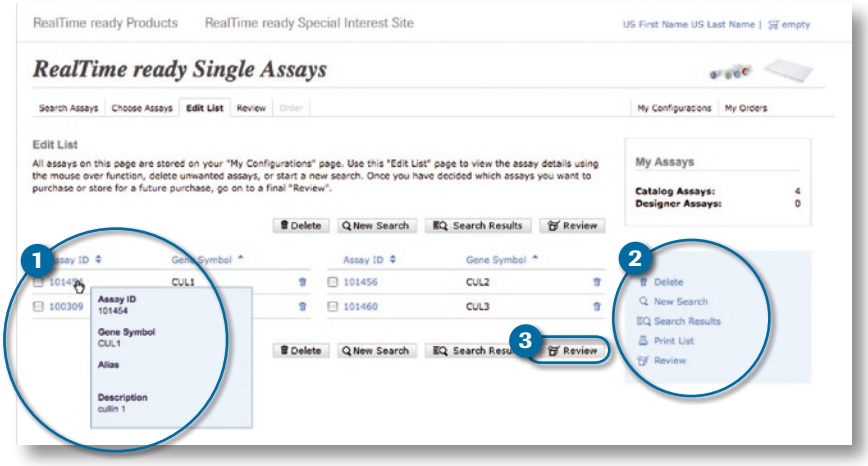


Select the desired assay with the “Add to List” button on the appropriate line 5. To select several assays at once, check the boxes next to the desired assays, or select all assays in the displayed table by clicking the box at the top 6. Then use the “Add to List” 7 button at the top of the page to transfer all the selected assays to your shopping list.

To edit and review your current selections, click the “Edit List” button 8.



Edit List



The “Edit List” window shows your current assay selections. Moving the mouse cursor over an assay will pop up a box listing brief details for the assay 1. Use these buttons to edit, refine or print your search results 2. Note that assays deleted from the “Edit List” page are still available on your “My Configurations” page, in case you want to use them in future. Once you have decided which assays to purchase, move on to the “Review” page 3 to see the list price of your selections.

Review

The “Review” window displays a summary of your selections, along with the list price.

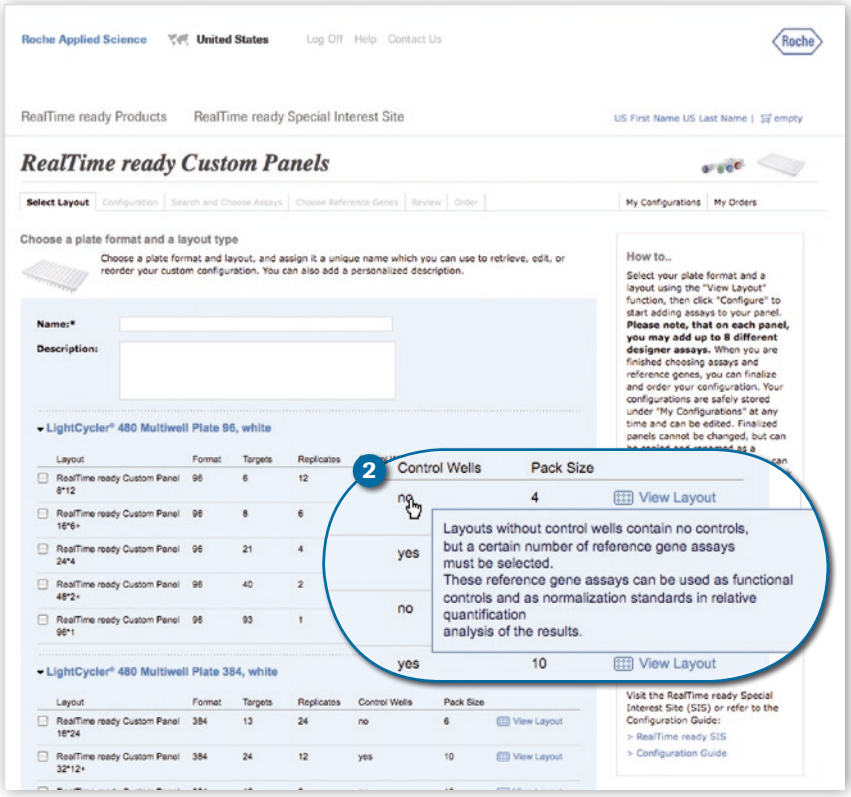
To make changes to your selections, click “Edit List” 1 to return to your list of assays. If you are satisfied with your selections, click “Add to Shopping Cart” 2 to place your assay in the Configurator’s shopping cart in preparation for ordering.

Custom Panel Configuration

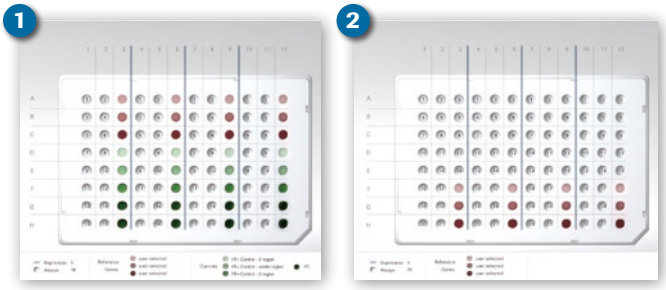
The Custom Panels mode (1) allows you to configure RealTime ready Custom Panels with assays of your choice on LightCycler® 480 Multiwell Plates 96 or 384.

The Custom Panel Configurator guides you through this six-step process.

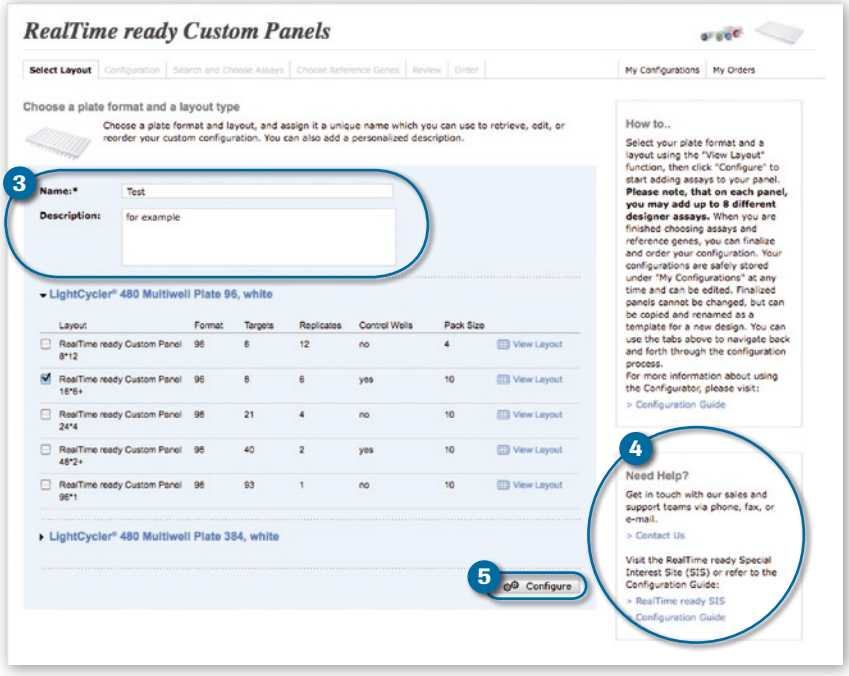
Select Layout and Assign Name



Several different layouts are provided for LightCycler® 480 Multiwell Plates. The table provides basic information about each layout. Move the mouse cursor over an entry in the "Control Wells" column (2) to pop up a box containing information about that layout's control concept.



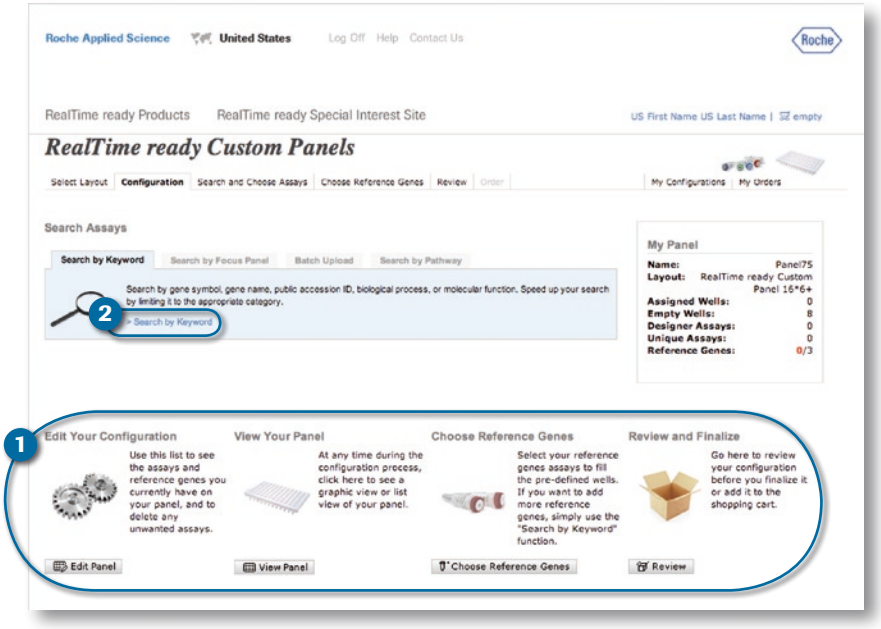
Click on the “View Layout” link to view graphical representations of the panel layouts, and choose between panels with 1 or without 2 controls. Note that all panel layouts require two or three reference genes, which you need to select during the configuration process, described later in this tutorial.



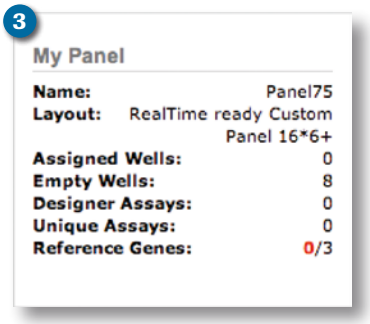
Once you have decided on format and layout, you must provide a unique name for your panel 3. You may also add a short description for your own records. You can always refer to the “Help” box 4 for more detailed information, technical background, or customer support.

Click “Configure” 5 to start the configuration process.

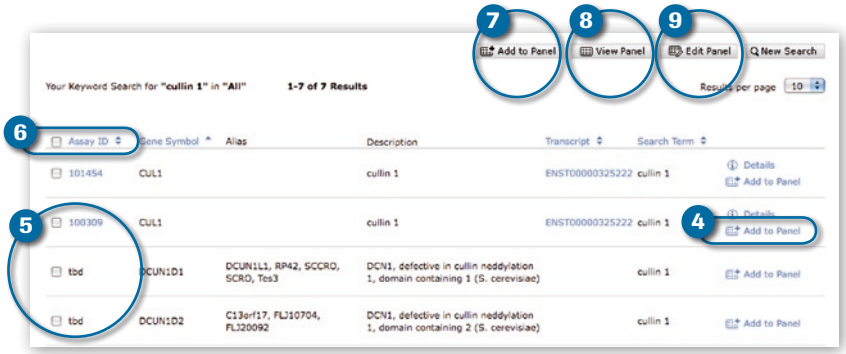
Configuration



This page gives you a short overview of the configuration workflow 1, introducing the most important action buttons and icons. The four search functions are also briefly explained. Choosing a search function will take you to the assay search and selection process, as described on pages 17 - 20 2.

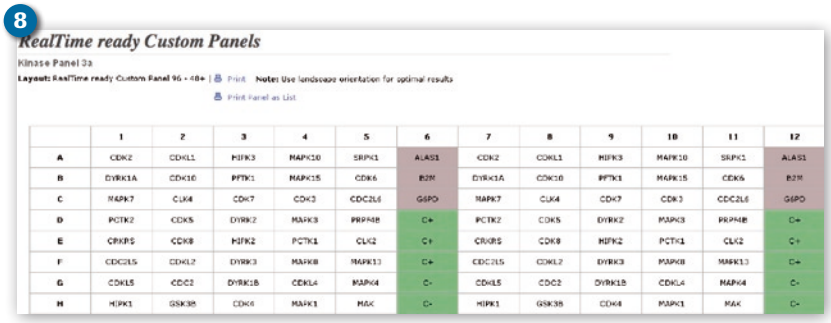


The "My Panel" window 3 will accompany you throughout the configuration process. It provides you with real-time information about the panel you are currently configurating, including the number of assigned and empty wells, and the number of assay and reference genes.



After finding the assays you need, you can add them to your custom panel. You can select a single assay 4, or several assays at once by checking multiple boxes 5, or you can use this top checkbox to mark all assays 6 in the table. Once your assays are selected, click "Add to Panel" 7.

You can choose up to eight Designer Assays per panel. If you require more than eight Designer Assays or a larger number of panels, please contact your local Roche sales representative.

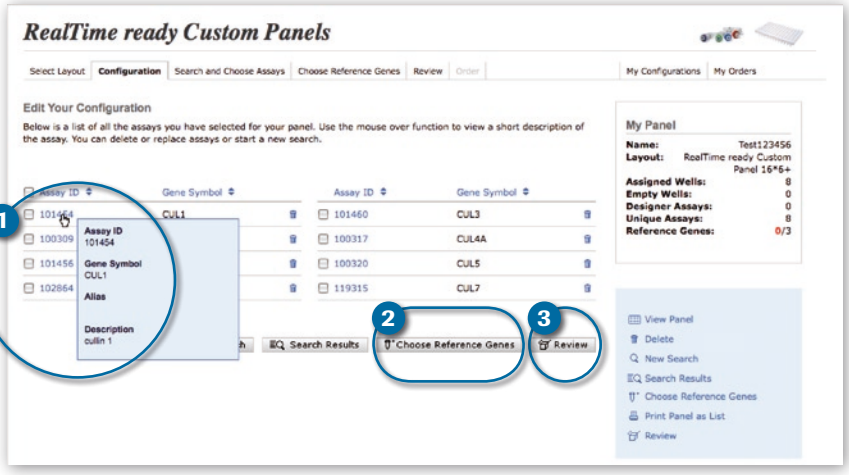


Use the "View Panel" button 8 to obtain a preview of your custom panel. In the preview window, you can move the mouse cursor over the assays to obtain brief information about each assay. Click the assay to view full information about the assay.

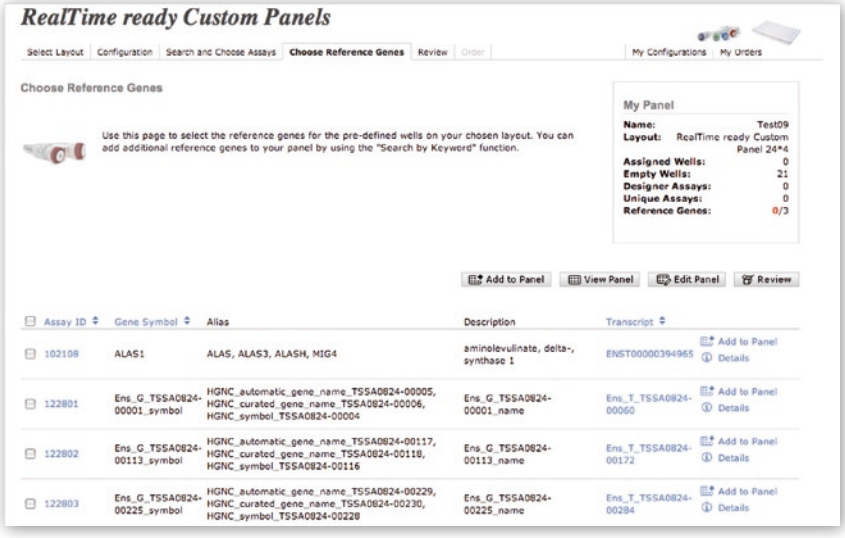
Click 'Edit Panel' 9 to work with your current custom panel.

Edit Panel

The “Edit Panel” page shows your current panel content as a list. Move the mouse cursor over the assays to pop up a window with information about the search term and the assay ID 1.



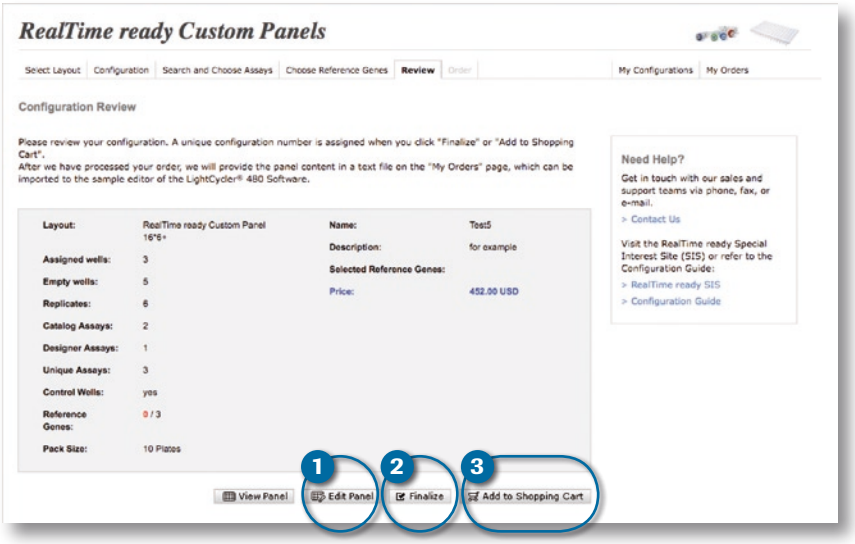
Before you move on to the “Review” page, select your preferred reference genes 2 for the pre-determined locations on your panel. As you select reference genes, the “My Panel” information box will update accordingly. You can fill additional wells of your panel with reference gene assays of your choice or designate any custom assay as such.



When you are ready, move on to the “Review” page 3.

Review

The “Review” window summarizes all relevant information about your panel and also provides the price of the panel with all the assays currently selected.



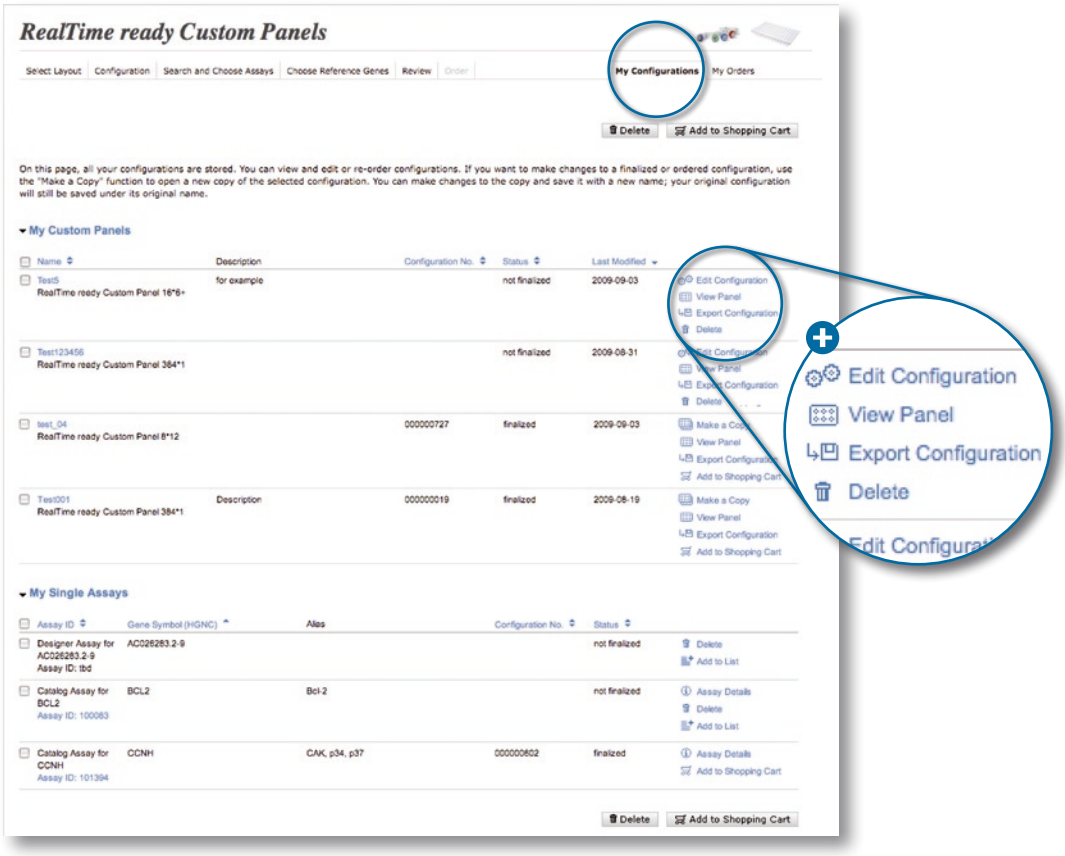
If you have selected too many or not enough assays or reference genes, helpful reminders will pop up, directing you back to the “Edit Panel” 1 page to make corrections.

To make your purchase immediately, transfer your completed custom panel to the Configurator’s shopping cart 3.

To place your order later, click “Finalize” 2 to save your panel, with a unique configuration number, in your account’s “My Configurations” area.

My Configurations

Your account's personalized storage and work space, called "My Configurations", is accessible from the operating mode selection page after logging in, as well as from most other Configurator windows.

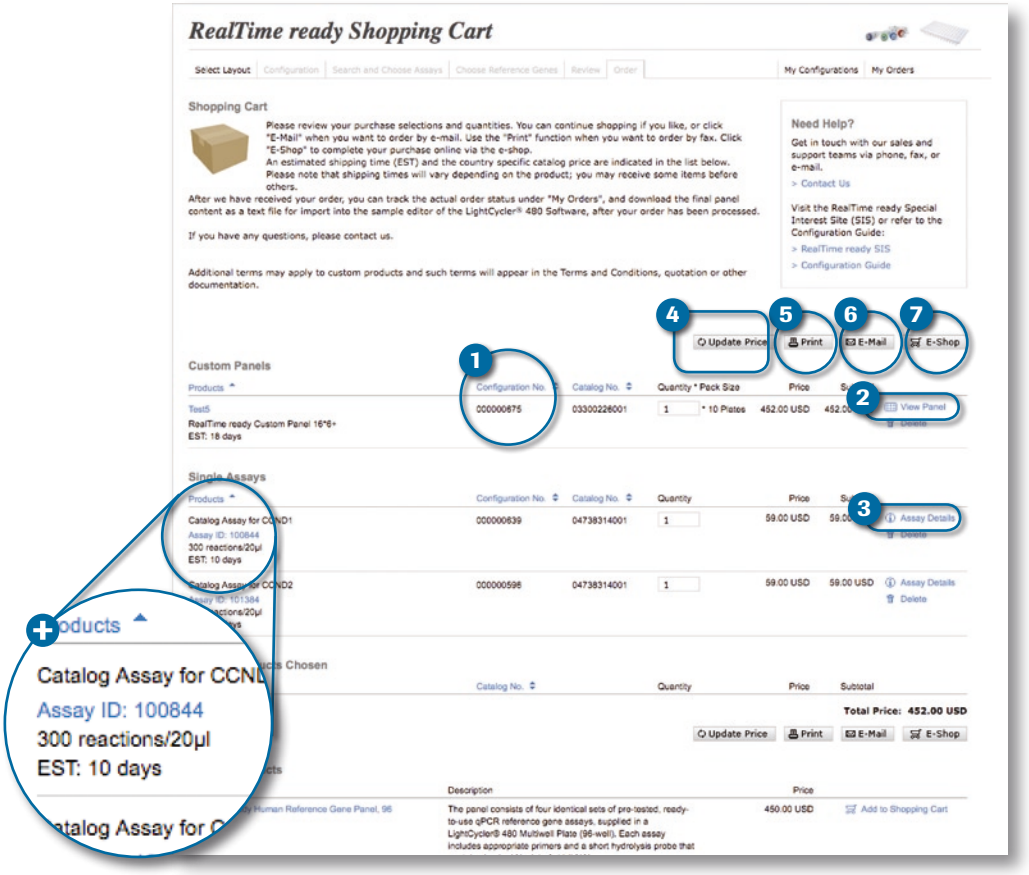


By default, all your configurations and assays are automatically stored as "not finalized", meaning that you can freely edit and modify them, as well as export them as text files. You can log out of the Configurator, return at a later time, and access all your work in your "My Configurations" page.
To continue working on a configuration, click on "Edit Panel" to go to the "Configuration" page, from where you can access all other functions. Click on "Add to List" next to an un-finalized assay to go directly to the "Edit List" page.

Finalized panels and assays have a configuration number assigned to them and cannot be edited or deleted. Finalized panels can, however, be copied and renamed; the duplicate panel can then be edited under the new name. Your original configuration will still be saved under its original name and configuration number, and can be directly placed into the Configurator´s shopping cart.

Shopping Cart

The RealTime ready Configurator's shopping cart shows all custom panels or single assays that you have selected for purchase.



You will see that a configuration number 1 has been assigned to each single assay or custom panel. Be sure to use this unique identifying number to ensure accuracy when ordering, since Roche identifies your panels and assays only via this configuration number. An estimated shipping time is provided for each custom product.

You can use the "Assay Details" 3 and "View Panel" 2 options to double-check the contents and details of your panel and assays.

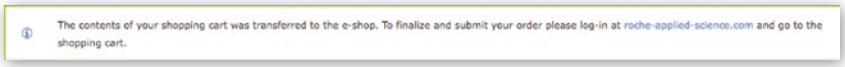
Changes can be made to the number of assays or panels. After making any changes, please remember to click "Update Price" 4 to obtain the new totals for the assays and panels.

Additional Roche Applied Science products, such as the RealTime ready DNA Probes Master, can also be added to the shopping list, to ensure successful performance of your custom panels or assays.

When you are satisfied with the contents of your shopping cart, there are a number of different options to complete your order.

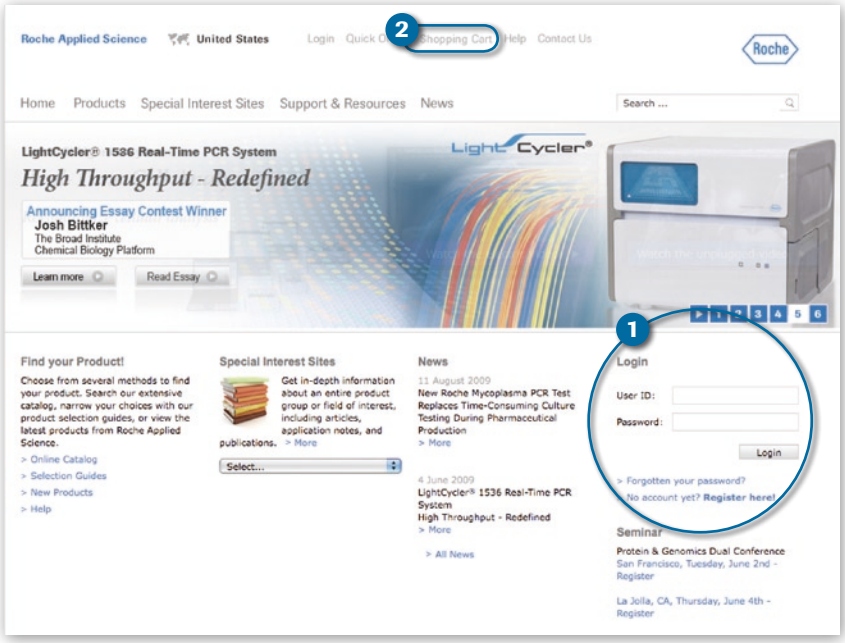
- Click on “E-Mail” (6) and complete the provided order form. Clicking again on “E-Mail” will electronically send this order to your local sales organization of Roche Applied Science.
- Click “Print” (5) to produce a hard copy of the order form. Fill out the order form that appears in the window, and then click the “Continue” button, followed by the “Print” button. You can then fax this hard copy to Roche Applied Science to complete your order.
- Click “E-Shop” to place your order online at the Roche Applied Science E-Shop (7). Using this option will transfer your Configurator’s shopping cart automatically to the shopping cart in the E-Shop.

You will receive a prompt that your Configurator’s shopping cart has been transferred to the Roche Applied Science E-Shop, and a link to the Roche Applied Science home page will appear.

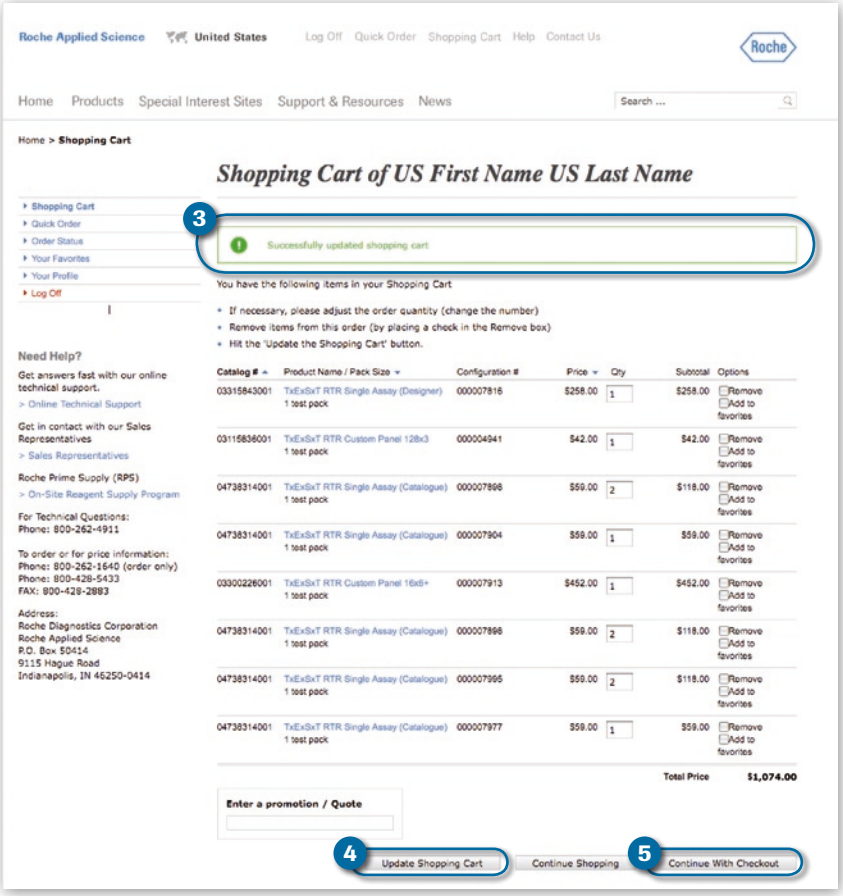


Click the new link to go to the Roche Applied Science E-Shop.

Roche Applied Science E-shop



When you arrive on the Roche Applied Science home page, please enter your E-Shop User ID and Password 1 and then go to your shopping cart 2.



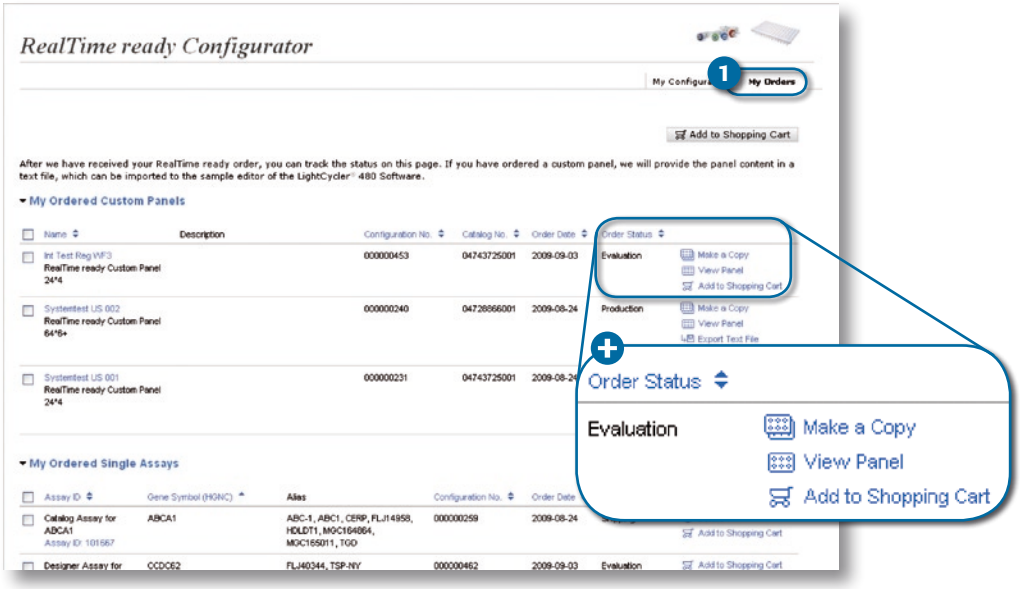
This green message window 3 should verify that your shopping cart was successfully updated with the contents of your Configurator's shopping cart contents.

You can also delete assays and panels within the E-Shop shopping cart. Be certain to click on "Update Shopping Cart" 4 after making any changes.

After updating and verifying the contents of the E-Shop shopping cart, click "Continue With Checkout" 5 to send your order to Roche.

My Orders

When your custom orders are active and arrive at Roche, you will find them listed in the RealTime ready Configurator under “My Orders” 1.



You can track the order status and retrieve the final content of your panels in form of a text file as soon as production of your panel is completed at Roche. This text file can be transferred to the sample editor of the LightCycler® 480 Software.

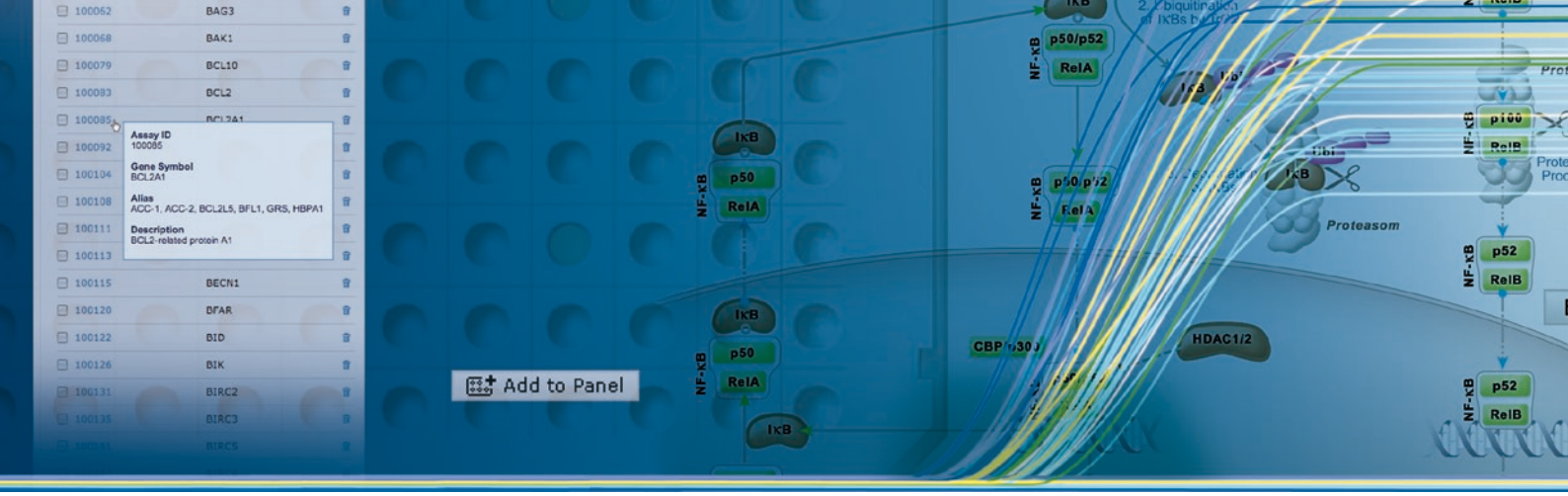
On the “My Orders” page, you can also re-order panels and single assays.

Note that any Designer Assays you have previously ordered will now be available as Catalog Assays, with updated catalog numbers. If you choose to re-order a previous Designer Assay without using the Configurator, for example, when ordering by phone, be sure to use the new catalog number.

To make ordering easier, we recommend using the RealTime ready Configurator to place your orders and re-orders. Using the Configurator ensures that the correct catalog number and price are automatically matched to your order.

Ordering Information

Product	Cat. No.	Pack Size
RealTime ready Custom Assays	Please go to www.realtimeready.roche.com	
RealTime ready Custom Panels	Please go to www.realtimeready.roche.com	
RealTime ready Focus Panels		
RealTime ready Human Reference Gene Panel, 96	05 339 545 001	2 plates (each containing 96 assays)
RealTime ready Human Reference Gene Panel, 384	05 467 675 001	2 plates (each containing 384 assays)
RealTime ready Human Apoptosis Panel, 96	05 392 063 001	2 plates (each containing 96 assays)
RealTime ready Human Apoptosis Panel, 384	05 339 316 001	2 plates (each containing 384 assays)
RealTime ready Human ABC Transporter Panel, 96	05 339 324 001	2 plates (each containing 96 assays)
RealTime ready Human ABC Transporter Panel, 384	05 467 713 001	2 plates (each containing 384 assays)
RealTime ready Human Cell Cycle Regulation Panel, 96	05 339 359 001	2 plates (each containing 96 assays)
RealTime ready Human Cell Cycle Regulation Panel, 384	05 467 683 001	2 plates (each containing 384 assays)
RealTime ready Human GPCR Panel, 96	05 353 068 001	2 plates (each containing 96 assays)
RealTime ready Human GPCR Panel, 384	05 467 705 001	2 plates (each containing 384 assays)
RealTime ready Human Nuclear Receptor Panel, 96	05 339 332 001	2 plates (each containing 96 assays)
RealTime ready Human Nuclear Receptor Panel, 384	05 467 691 001	2 plates (each containing 384 assays)
Real-Time PCR Reaction Mixes		
RealTime ready DNA Probes Master	05 502 381 001	5 x 1 ml (5x conc.)
LightCycler® 480 Probes Master	04 707 494 001	5 x 1 ml (2x conc.)
Additional Products Additional Products		
Transcriptor First Strand cDNA Synthesis Kit	04 379 012 001	1 Kit (50 reactions)
LightCycler® 480 Sealing Foil	04 729 757 001	50 foils



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- The Universal ProbeLibrary:
  http://www.universalprobelibrary.com
- RealTime ready Custom Assays and Panels
  http://www.realtimeready.roche.com
- The LightCycler® System family for real-time, online PCR:
  http://www.lightcycler-online.com
- The MagNA Pure System family for automated nucleic acid isolation:
  http://www.magnapure.com
- Amplification – Innovative tools for PCR:
  http://www.roche-applied-science.com/pcr
- DNA & RNA preparation – Versatile Tools for Nucleic Acid Purification:
  http://www.roche-applied-science.com/napure

Published by

Roche Diagnostics GmbH
Roche Applied Science
Werk Penzberg
82372 Penzberg
Germany