

Bio-Plex Analysis Software

If making sense of your multiplex data is your challenge, then Bio-Plex data analysis software is your answer. We've built upon the **industry-leading Bio-Plex Manager Software** to create an integrated solution that provides real answers to the hypothesis being tested in your biological systems.

Bio-Plex Software is the ideal solution to reduce errors, save time, and get up to speed fast.



Reduce errors

- Importing results directly into a database from Bio-Plex Manager data files drastically reduces the need to audit results and eliminates mistakes introduced by copy-and-paste errors



Save time

- Editing analysis options result in instantaneous updates to all the outputs and reduces the time spent creating graphs and performing analysis
- Automating calculations based on the most common comparisons used by biological researchers eliminates time spent organizing data
- Applying a truly integrated solution simplifies and speeds up data analysis

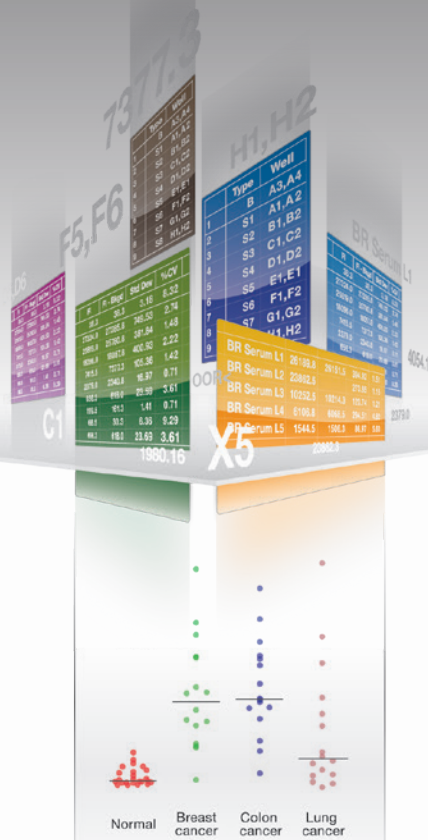


Get up to speed fast

- Truly user-friendly software removes training burden, ensures instrument reliability, and eliminates user error

Bio-Plex Manager makes it simple to operate the instrument and analyze multiplex data, providing system control, validation, calibration, and data acquisition for the Bio-Plex 200 System and data analysis and optimization for multiplex assays from any Luminex xMAP instrument.

Bio-Plex Data Pro Software combines multiple instrument runs to efficiently understand what your multiplex data say about your biological system.



Bio-Plex Data Pro Software

Simplify your data analysis.

With Bio-Plex Data Pro Software, analysis is automated and easily customizable, resulting in instantaneous answers to all your complicated questions.

Organize your data

Bio-Plex Data Pro Software is a true database application. Effortlessly organize large volumes of data produced using multiplex technology.

- Combine xMAP technology data results files into easy-to-manage projects
- Quickly label samples with biologically relevant information, then easily make comparisons
- Create error-free custom tables of any size for further processing in standard spreadsheets and statistical software

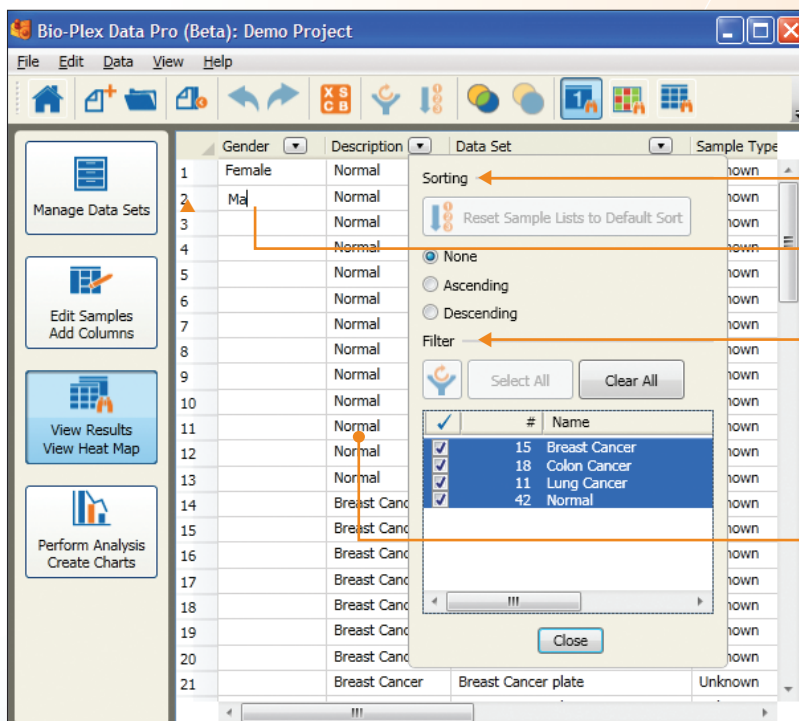


Table **sorting** options to meet your needs

Enter information in cell

Filter data to show only relevant information

Paste arrays from an Excel spreadsheet

Automate your calculations

Bio-Plex Data Pro Software was built with the biological researcher in mind. It performs calculations automatically with limited input from the operator.

- Quickly view your results in a finished state with little input and no need to perform extensive auditing of data
- Effortlessly change automated calculations to test new hypotheses or account for new insights

Start Here ?

Compare by Condition

Control Normal (26)

Statistical Test ?

t-test / one-way ANOVA

Mann-Whitney / Kruskal-Wallis

Filter Results ?

Filter by Gender

Select All Clear All

<input checked="" type="checkbox"/>	#	Name
<input checked="" type="checkbox"/>	44	Female
<input checked="" type="checkbox"/>	30	Male

Start Here ?

Compare by Condition

Control Normal (12)

Statistical Test ?

t-test / one-way ANOVA

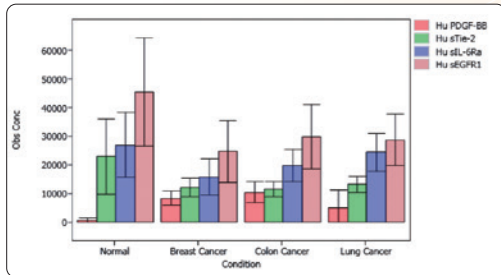
Mann-Whitney / Kruskal-Wallis

Filter Results ?

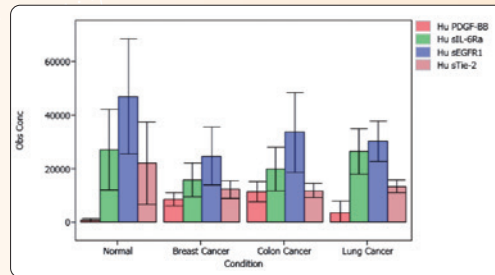
Filter by Gender

Select All Clear All

<input checked="" type="checkbox"/>	#	Name
<input checked="" type="checkbox"/>	44	Female
<input type="checkbox"/>	30	Male



Males and females



Females only

Condition	# Samples	# Valid Samples	P-Value	P-Value Method	Fold Change	Mean	Std Dev	%CV	Standard Error	Min	Q1	Median	Q3	Max
Normal	12	12	---	---	---	767.39	566.98	73.88	163.67	223.73	339.77	522.95	1419.67	1817.23
Breast Cancer	16	16	1.29E-05	t-test	3.31	7616.49	4340.04	56.98	1085.01	808.22	4089.98	7028.77	10564.72	17533.34
Colon Cancer	8	8	0.00311	t-test	3.25	7278.76	4192.8	57.6	1482.38	1387.8	3311.99	7826.53	10465.78	13597.91
Lung Cancer	8	8	0.039	t-test	3.02	6228.71	6083.2	97.66	2150.74	1170.23	1325.82	4100.5	10978.18	18042.94

Convenient **Summary Table** also updates when new selections are made.

Visualize your results

Bio-Plex Data Pro Software rapidly presents data in the most common formats. Quickly visualize comparisons made using a large number of samples.

- Quickly present results in a manner that is relevant to your research
- Instantly update graphs when new comparisons are desired or when different analysis options are applied
- Effortlessly create graphs without the need to copy and paste to an Excel spreadsheet

The screenshot shows the Bio-Plex Data Pro software interface with several callouts explaining key features:

- Choose parameter on which to draw comparison:** Points to the 'Compare by' dropdown menu set to 'Condition'.
- Choose Control condition:** Points to the 'Control' dropdown menu set to 'Normal (13)'.
- Filter results based on any parameter in your project:** Points to the 'Filter By' dropdown menu set to 'Matrix'.
- Select from 3 different graphical output options:** Points to the chart type selection buttons (Scatter, Bar, Box Plot).

The main window displays a data table with columns for Analyte, P-value, P-value Method, Fold Change, Avg, Std Dev, NCV, # Valid Samples, Total Samples, # Outliers, and # Groups. The selected analyte is 'Hu PDGF-BB'.

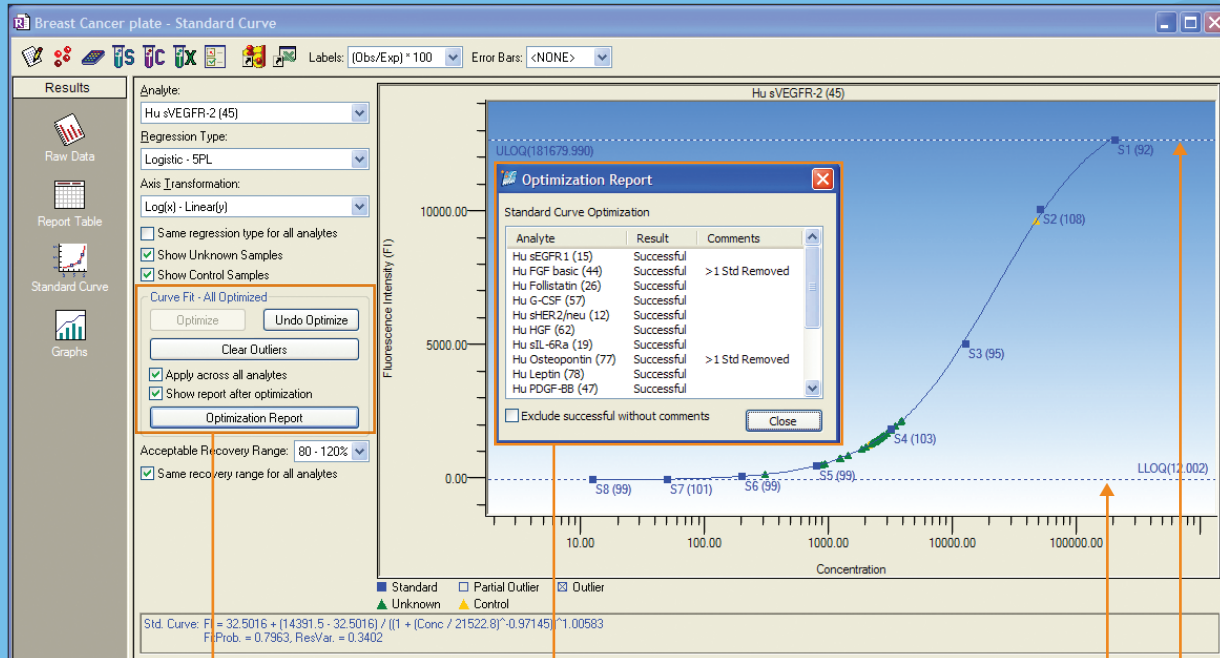
Three visualization options are shown for 'Hu PDGF-BB':

- Scatter Plot:** Shows individual data points for Normal, Breast Cancer, Colon Cancer, and Lung Cancer conditions. P-values are indicated for comparisons: Normal vs Breast Cancer (p=0.00017), Normal vs Lung Cancer (p=0.00017), and Breast Cancer vs Lung Cancer (p=0.00592).
- Bar Chart:** Shows mean concentrations with error bars for each condition. Legend: Hu PDGF-BB (red), Hu HGF (green), Hu PECAM1 (blue).
- Box Plot:** Shows the distribution of data for each condition. P-values are indicated: Normal vs Breast Cancer (p=4.392e-05), Normal vs Lung Cancer (p=0.00013), and Breast Cancer vs Lung Cancer (p=0.081).

Bio-Plex Manager Software

Bio-Plex Manager Software is the ideal tool for running xMAP instruments* and for reviewing run data and optimization results.

- Seamlessly transfer data to Bio-Plex Data Pro Software so that you can perform all your analysis steps on one PC
- Automate data review and optimization to ensure high-quality data and standardize results

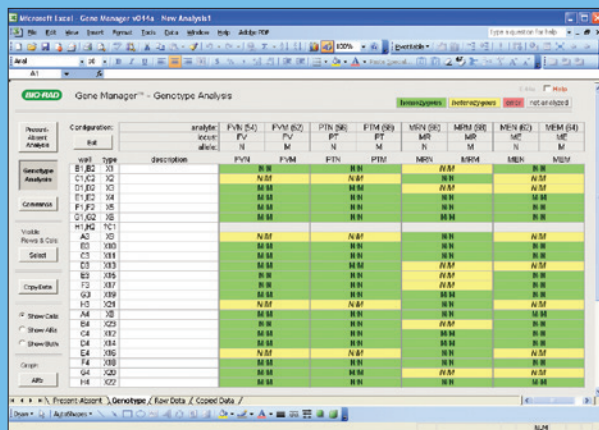


Automated standard curve optimization simplifies and accelerates data review

Simple report highlights data issues to save you time

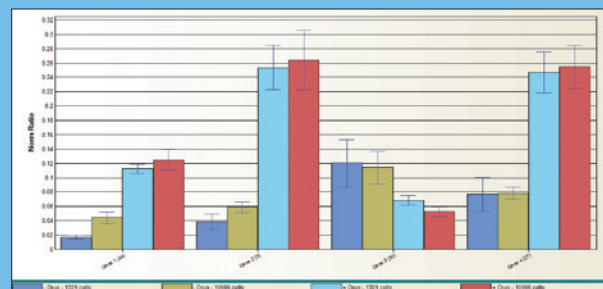
Easily visualize unknowns, controls, and the working range of your assay

- Use the most flexible multiplex analysis software to analyze run results for any application



Automate genotyping calls with the integrated Gene Manager analysis macro.

* Bio-Plex 200 System only.

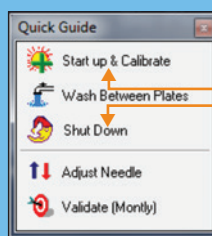


Multiple custom-embedded graphs can be generated and saved with each data file. The graphs update dynamically with changes to the data file. This chart demonstrates a gene expression analysis where two housekeeping genes were used to normalize expression of four genes of interest.

continued

Bio-Plex Manager Software continued

Simplify maintenance and daily operation with truly user-friendly software featuring unmatched ease of use in Bio-Plex 200 instrument control software.



Single instrument operation with one morning and one evening procedure

Updated **Quick Guide** and single integrated start of day procedure make operation training a self-guided process

Product Use

Bio-Plex analysis software may be purchased in a variety of configurations to suit your lab's unique needs.

Bio-Plex Manager — for reviewing the data from your instrument run

Bio-Plex Manager Software is a comprehensive instrument control,* data acquisition, and data review application. Major functions include:

- Evaluating raw instrument data
- Optimizing standard curves and usable assay ranges
- Identifying outliers
- Troubleshooting instrument runs

Bio-Plex Data Pro — for quickly making comparisons and drawing conclusions

Bio-Plex Data Pro Software is a data management and data visualization tool designed to allow you to quickly draw conclusions about your biological study. Save time when answering the many complex questions that are at the heart of your research.

Purchasing Recommendations

Instrument data review and optimization is performed in my lab	I use xPONENT Software to run my instrument	I use Bio-Plex Manager Software to run my instrument
Exclusively on the PC running the Bio-Plex 200 instrument or at one central location in the lab	Bio-Plex Manager Software, Standard Edition (#171STND01), 1 seat Bio-Plex Data Pro Software (#12015390), 5 seats	Bio-Plex Data Pro Software (#12015390), 5 seats
By each of many researchers individually at their own PCs	Bio-Plex Data Pro Software (#12015390), 5 seats, and Bio-Plex Manager Software (#171STND05), 5 seats	Bio-Plex Data Pro Software (#12015390), 5 seats, and Bio-Plex Manager Software (#171STND05), 5 seats

Ordering Information

Catalog #	Description	Catalog #	Description
12015390	Bio-Plex Data Pro Software , includes 5-user network license	171SCRT01	Bio-Plex Manager Software 6.2 Security Edition , includes 1-user desktop license, allows compliance with U.S. FDA 21 CFR part 11 regulations
171STND01	Bio-Plex Manager Software 6.2 , includes 1-user desktop license	171SCRT05	Bio-Plex Manager Software 6.2 Security Edition , includes 5-user network license, allows compliance with U.S. FDA 21 CFR part 11 regulations
171STND05	Bio-Plex Manager Software 6.2 , includes 5-user network license		

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