FCAP Array[™] v3.0 Software: A New Tool to Analyze **BD™ Cytometric Bead Array (CBA) Data**

Monisha Sundarrajan, PhD **BD Biosciences**



Agenda

- Introduction
- Overview of BD CBA bead based immunoassays
- FCAP Array v3.0 key features
- Live demonstration of data analysis in FCAP Array v3.0



Cellular communication and signaling





Summary of Techniques for Measurement of Cytokines





BD CBA Assay Overview

- Analytes are bound by specific capture antibodies conjugated to beads with distinct fluorescent properties
 - Based on an antibody pair, the same principle as a sandwich ELISA
- The reporter in the assay is a PE-labeled detection antibody
- Analyte concentrations are estimated by comparison with a standard curve





Bead Based Immunoassay Overview

- Advantages
 - Analyze multiple cytokines simultaneously (≤30)
 - Reduced sample volume requirements
 - Reduced hands-on time with parallel analysis of samples
 - Wide dynamic range (fluorescence)
 - Requires fewer sample dilutions
 - High statistical relevance
 - 300 beads measured per cytokine \rightarrow equivalent of 300 ELISA wells
- BD CBA is like doing multiple ELISAs at the same time by flow cytometry



Comparison with ELISA

BD CBA	ELISA
Uses culture supernatant or serum/plasma	Uses culture supernatant or serum/plasma
High statistical relevance	Must run samples at least in duplicate
Can detect multiple cytokines simultaneously	One cytokine per ELISA plate
Fewer sample dilutions due to broad dynamic range	Requires multiple sample dilutions
Requires a flow cytometer and analysis software	Relatively easy to perform and fairly inexpensive



The BD CBA Workflow





BD CBA Reagent Configurations

- BD CBA Kits
 - Preconfigured panels of 3 to 7 analytes
 - Th1/Th2
 - Th1/Th2/Th17
 - Inflammatory Cytokines
 - Anaphylatoxins
 - Includes all reagents required to run the assay
 - 80 tests per kit
 - 2-color assay
 - Red dye in beads
 - PE reporter

- BD CBA Flex Sets
 - Build your own multiplex
 - Human Soluble Protein
 - Mouse or Rat Soluble Protein
 - Enhanced Sensitivity (>274 fg/mL)
 - Cell Signaling
 - Human Immunoglobulin
 - Flex Set = Capture Beads, Detection Reagent, Standard (2 curves)
 - 100 tests
 - Master Buffer Kit = all buffers needed for assay
 - 100 or 500 test sizes
 - 3-color assay
 - Two red dyes in beads
 - PE reporter



Instrument Compatibility: BD CBA Kits

Instrument	Reporter Parameter	Clustering Parameters
BD FACSVerse flow cytomer	PE	CBA Red
BD FACSArray bioanalyzer	Yellow	Red
BD FACSCanto™ II flow cytometer	PE	APC
BD [™] LSR II flow cytometer	PE	APC
BD FACSAria [™] II cell sorter	PE	APC
BD FACSCalibur™ flow cytometer (single laser)	FL2	FL3
BD FACSCalibur™ flow cytometer (dual laser)	FL2	FL4





Instrument Compatibility: BD CBA Flex Sets





Tools to Simplify Data Acquisition

- bdbiosciences.com/cbasetup
- Download templates and instructions
 - Instrument setup
 - Data acquisition
- Assay instructions: either in BD CBA kit or flex set manuals



FCAP Array v3.0 Analysis Software



	Pite Pite <th< th=""><th> Balan (Q) first Balan (Q) first Balan (Q) <</th><th>ney % Die</th><th>Ractory &</th><th>Prof.CE IN</th><th>Priveloc</th><th>hered</th><th></th><th></th><th></th><th></th><th></th><th>12</th><th>No.</th><th>1.000</th><th></th><th></th></th<>	 Balan (Q) first Balan (Q) first Balan (Q) <	ney % Die	Ractory &	Prof.CE IN	Priveloc	hered						12	No.	1.000		
Answer Answer<	Import Control New Products	N Dates QCMs 1 NA 1 3 NA 1 1 NA 1 3 NA 1 3 NA 1	1975) (b) 1975) (b) 1975) (b)	Recovery No.	Prof CE I	PRIVACE	hered for						1	- Coper	1 100 See	um And CC - Unit Court Durit Land Durit	tina and
Norm	Open State Cold Name/Feb Desci. 1/2 Adds Totality End Name/Feb End Name/Fe		N 1	87.41 %	A CONTRACTOR OF			1100	-	-	Part 4	dame the blac	Lawren	-	Course himse	1	
Mark Mark <th< td=""><td>Marci Marci <th< td=""><td>1 55 1 55 1 55 1 55</td><td>N 1</td><td>87.61 %</td><td></td><td></td><td>CONCEPTION NO.</td><td>1111111</td><td></td><td>TTO A DECK</td><td></td><td>Contraction of the</td><td></td><td>COLUMN 1</td><td>Tanfair I</td><td></td><td>Contra Contra Co</td></th<></td></th<>	Marci Marci <th< td=""><td>1 55 1 55 1 55 1 55</td><td>N 1</td><td>87.61 %</td><td></td><td></td><td>CONCEPTION NO.</td><td>1111111</td><td></td><td>TTO A DECK</td><td></td><td>Contraction of the</td><td></td><td>COLUMN 1</td><td>Tanfair I</td><td></td><td>Contra Contra Co</td></th<>	1 55 1 55 1 55 1 55	N 1	87.61 %			CONCEPTION NO.	1111111		TTO A DECK		Contraction of the		COLUMN 1	Tanfair I		Contra Co
Martiness Process P	Mart Mart Mart Mart Link Link <th< td=""><td>5 548 5 548 5 548 5 548</td><td>1 494</td><td></td><td>19.06 pg/HL 87</td><td>IB OK pights</td><td>18.32 pg/H</td><td>12.47%</td><td>138-62</td><td>246.40</td><td>431</td><td>STANDARD</td><td>4,10</td><td>1.01</td><td>SHIEL</td><td>out They</td><td>Beat.</td></th<>	5 548 5 548 5 548 5 548	1 494		19.06 pg/HL 87	IB OK pights	18.32 pg/H	12.47%	138-62	246.40	431	STANDARD	4,10	1.01	SHIEL	out They	Beat.
Norma Nort + mande 4 Nort + mande 4<	Martin Martin Column Column<	1 54 1 54 1 54		110.04%	6.5k pg/46. 12	45.58 pg/m	35.00 (16)	47.25%	186.77	385.50	203	STANDARD.	4.46	1-61	SMOLT	nar 2.5	bead.
off bmt fill bmt fil	mini built := bui	3 10.8 3 10.8	5 1	87.25 %	NATION I	IS AT ANY ANY	10.17 (6)44	4.25%	237.70	\$29.00	28	STRIDAID.	8,00	3-01	34034	Nat 2-4	Seal
Set of the set of t	Name 1 Au Direction MI	5 50	N 1	16.75 %	43.35 (8)	140.28 July 1	134-23 pg/H	10.42 %	171.43	674.90	124	STANDARD	Auto	1-61	IMPO	um 12	Inof
MBUT 0-10 MD DESC MD MD MD MD MD	DBET 1-41 Aus Devolut, into Dist 1-41 Aus Devolut, into Dist Dist <thdist< th=""> <thdist< th=""> <thdist< td="" th<=""><td></td><td>N 5</td><td>85.87%</td><td>201452494. 51</td><td>281.41 MPL</td><td>312-34 pg/HL</td><td>10.00</td><td>167.85</td><td>1.465.05</td><td>200</td><td>STANDARD</td><td>Auto .</td><td>3-45</td><td>TAKINA .</td><td></td><td></td></thdist<></thdist<></thdist<>		N 5	85.87%	201452494. 51	281.41 MPL	312-34 pg/HL	10.00	167.85	1.465.05	200	STANDARD	Auto .	3-45	TAKINA .		
add of half add more half base	State Field -rd An Probable 27 USA State State<	- 5 NA	15 1	207.01%	48.810gHL 20	AND TLANDS IN	625.00 pg/m.	17.85 %	L03.4	2,807.30	309	STANDARD	8,00	3-65	\$4017		
Mark Lange Aller Alle	Internet Data Aug The Real L. Status Linitia Aufire Linitian Linitian <thlinitian< th=""> <thlinitian< th=""> <thl< td=""><td>1 58</td><td>0% L</td><td>206.83 %</td><td>1,725.32 pg/m. st</td><td>L201.32 yg/mL</td><td>1,250.00 pg/HL</td><td>25.66 %</td><td>2,905.82</td><td>5,088.62</td><td>337</td><td>STRIDARD</td><td>Auto .</td><td>1-#1</td><td>Section</td><td></td><td>MI.</td></thl<></thlinitian<></thlinitian<>	1 58	0% L	206.83 %	1,725.32 pg/m. st	L201.32 yg/mL	1,250.00 pg/HL	25.66 %	2,905.82	5,088.62	337	STRIDARD	Auto .	1-#1	Section		MI.
Indificient indicative metal and device and device with the set of the end of the end of the set of the end of the set of the end of the end of the set of the end of the end of the end of the set of the end o	Birling Diff 1 - 40 Am Diffelion 1 - 40 Am Diffelion 1 - 40 Am Diffelion Am Am Diffelion Am Diffelion Am Diffelion Am Diffelion Am Diffelion Am Diffelion Am Diffelion Am Diffe	1 34	m 1	88.28 %	1,487.00 pg/m. 18	1,487.00 ppHL	2,500.05 pg/HL	38.45%	3,211,16	8.953.38	209	STHOMO	Auto .	3-#2	10000		510
And Alamany Control of the second	Configure Totelli I-C2 And L2/CU_m DL DL <thdl< th=""> DL <thdl< th=""> <thdl< td="" th<=""><td>8 368</td><td>N 1</td><td>87,12 %</td><td>4.8% 18 pg bit \$7</td><td>4.856 (FogHt</td><td>6,000.00 pg/Hz.</td><td>27.09 %</td><td>4,514,25</td><td>13,347,40</td><td>218</td><td>STANDARD.</td><td>Auto</td><td>1-82</td><td>566210</td><td></td><td></td></thdl<></thdl<></thdl<>	8 368	N 1	87,12 %	4.8% 18 pg bit \$7	4.856 (FogHt	6,000.00 pg/Hz.	27.09 %	4,514,25	13,347,40	218	STANDARD.	Auto	1-82	566210		
ence series de la construcción d	Marking and Company Terminal Dial Advance LTX_LID 201 Database Database <thdatabase< th=""> <thdatabase< th=""> <thdatabase< td="" thd<=""><td>3 N.N.</td><td>- 8</td><td>N/B</td><td>12,912.21 pg/HL N</td><td>12,912.01 pg/HL</td><td>A8</td><td>25.42 %</td><td>8,892.50</td><td>24,838.10</td><td>121</td><td>LXUR-</td><td>Auto</td><td>1-03</td><td>Teef001)</td><td></td><td>-</td></thdatabase<></thdatabase<></thdatabase<>	3 N.N.	- 8	N/B	12,912.21 pg/HL N	12,912.01 pg/HL	A8	25.42 %	8,892.50	24,838.10	121	LXUR-	Auto	1-03	Teef001)		-
Weits in die konstruktionen weiten einen eine	Tentist 1-62 Ann LE(1)(2,	3 N/A	3	nja -	13,812-38-pg/HL Ni	11,912.36 (4094	164	27.80 %	6,865.89	21,798.30	283	LEUR_	Auto	1-00	1ee1003		-
Beed 1 - Mouse TNF - Find CC	Tenting 1-42 Ann L.2.2.94 11.33.3 7.44.75 MA 11.24.55 MA 11.23.56 Control 10.20 MA	1 %/A	- 1	N/A	12,257.38.26/HL N	11, 167, 38 pg (Hs.	NA.	23.98 %	5,111.12	22,841.50	285	L27,1_82	A,65	1-62	194003		
	Teacher 1. 71 Late 1.	1 544	1	NA.	10.524.56-pg/HL N/	10, 234, 36 pg/HL	104	31.84%	7,804.70	21,783.30	254	12,2,94,	4.0	1-#2	Teattion		
The new of	THE DESCRIPTION OF A DE	1 14		4/4	1,628,77 pg/mi 44	8,928,77 pg/m.	44	15.74 %	8,754.88	79,916.62	718	122.00	4,10	1-8	Teyfold		10 A
			_				11	int -						11.40.0			8
	3 1000								1.								3
	E trans						1	10.0	- C				11,912,344	_			2
							1					3	10,000				
												0.000					
	1000 -											1.10				1	
	900															6 -	
	000													_			
							7										
	600 · · · · · · · · · · · · · · · · · ·									er A. 312 70	1.10					1	
									A 241	1 1 1 2 2				1	-	-	
	AND CONTRACTOR OF														1. ALL 1. ALL	775	
															15.30		
	100 - Contraction of the Contrac														1	A CONTRACTOR OF A CONTRACTOR O	
											+ +	1 1	4 4	4 4			

- Compatible with FCS 2.0 or 3.0 files from any flow cytometer
- Integrated workflow for the BD FACSVerse flow cytometer
- Windows[®] 7, Vista[®], or XP compatible



Design View



- Identify location of data files
- Assign to standards and samples



Beads and Model

3	And a second second second	CBA Stand	ard Assay UD - FCAP Arra	y v3				
Home Settings	e Show Bead & Remove All Beads Add to Divery Bead & Remove All Beads Add to Divery Bead and Model Selection	For Al Print						
eriment	13 Deau and model percuru					11r		
annen		Selected Beads				Bead	Group	Group Description
Design				Analyte		Al Beads	Human CARDIN	560702
Data Sheet	Bead Name	Lot Number Catalog Number	Name	Model	2nd Reporter	A9	Ruman GAPOH	560792
Notes	C4	558328	Human Angiogenin	Quantitative	No	DE	Phospho Btk (VSE1)	560004
Report	C5	558327	Human Basic FGF	Quantitative	No	03	Phospho celup (S63)	560059
	D7	560418	Human CD14	Quantitative	No	C7	Phospho eNOS (S1	560021
tandard Assay UD Kit_P	A4	560269	Human CD54	Quantitative	No	C7	Phospho eNOS (T4	560065
Beads and Model	D9	560419	Human CD62E	Quantitative	No	C4	Phospho ERK1/2 (T	560012
Instrument Settings	D8	560420	Human CD62L	Quantitative	No	C6	Phospho Itk (Y511)	560008
Debris Eltering	D7	560426	Human CD62P	Quantitative	No	85	Phospho JNK1/2 (T	560013
or other interning	D6	560427	Human CD 106	Quantitative	No	A6	Phospho MEK1/2 (S	560150
Manual Clustering	B6	560276	Human CD121a	Quantitative	No	86	Phospho p38 (T180	5600.10
Standards and QC	87	560281	Human CD121b	Quantitative	No	0.7	Number N.C. AVT	50000
Control Definition	C7	560305	Human CD154/CD40L	Quantitative	No	1		
Standard Curves						Bead	Group	Group Description
Results ner Analyte						Al Beads	-	All Beads
Results per Analyte						Human Soluble Protei	1	BD CBA Flex Sets
Results per Sample						Mouse In1/In2 Cytox	ane Kit - 551287	BD CBA KIT
Report								BD CBA Hex Sets
						Human Enhanced Sen	sitivity (ES)	BD CBA Flex Sets
						Human Immunoglobul	n	BD CBA Flex Sets
						Mouse Soluble Protein		BD CBA Flex Sets
						Rat Soluble Protein	101 501440	BD CBA Hex Sets
						Human Anaphylatoxin	NT - 561418	BD CBA KI
						Human Chemokine Kit	- 552990	BD CBA KI
						Human Th1/Th2 Cytol	une Nit - 550/49	BD CBA KI
						Human Th1/Th2/Cytol	Cutokine Kit - 560/194	BD CBA KIL
						Mourse Inflammation P	Cytokine Nit - 300484	BD CBA KIL
						Mouse Intamination	Cutokina Kit - 560/95	BD CBA KIL
						Non-human Primate T	b 1/Th2 Cutokine Kit -	BD CBA KIL
						Mouse Immunoclabilit	Tsotyping Kit - 550026	BD CBA Kit
						Mouse Enhanced Server	sitivity (FS)	BD CBA Flev Sets
						Human Inflammatory	Cytokine Kit - 551811	BD CBA Kit
					#Beads: 1	1		

- Select the beads corresponding to analytes in your experiment from the bead library
- Download a bead library file from bdbiosciences.com/cbasetup



Instrument Settings

FAT					CBA Standard Assay UD - FC	AP Array v3		-						
Home Settings	1													
BB 🖻 🖻 🕽	è 🚿 🛛													
Save Save As Save Plex Clo as Template	ose Clear Cluster Assignment													
Experiment	is Instrume is													
Experiment	Selected File	C:\Users\10062526\Desktop	\cba keyword files\Tube 001 STD1.fc	s Ì-										
👌 Design	Instrument Data	Liberty -Liberty Machine 1			8419 8419									
Data Sheet	Scatter Parameter	SSC-A) -	- ¹²									
🕑 Notes	Scatter Peaks	1			Ev 1188									
🛍 Report	Clustering Parameters	APC-A	* APC-Cy7-A	- ×	5- 									
CBA Standard Assay UD Kit_P	Reporter Parameter 1	PE-A												
1 Beads and Model	Reporter Parameter 2			* ×	96									
2 Instrument Settings	Selected Beads		-		•									SSC-A
3 Debris Filtering		Bead	Analyte		0 26214	52428	78643	104857	131072	157286	183500	209715	235929	262144
4 Manual Clustering	C5		Human Basic FGF					Dat	a are compensale	ed.				
5 Standards and QC	D7		Human CD14		0 77-A						-C43 C5	D7 A4		
6 Control Definition	A4		Human CD54		0000							D		10 N
7 Standard Curves	D9 D8		Human CD62E Human CD62L		A						D9/	DB	D6	
8 Results per Analyte	D7		Human CDG2P		-						B6			
9 Results per Sample	D6		Human CD106									187 ·	C7	
10 Report	B6 B7		Human CD121a Human CD121b		1000									
	C7		Human CD154/CD40L		_ :									
					101									
					00 1									
					9- -									
					0									APC-A
						10		100	10	00	1000	00	10000	10
Administrator looped in														

- Verify scatter, clustering, and reporter parameters
- Assign beads to clusters



Standards and QC

6	CBA Standard Assay UD - FCAP Array v	3 The second
Home Settings		0.
Save Save As Save Plex as Template Experiment	Highest Concentration: 1000 Heavenent Unit pg/mL + Apply Apply Selected Use Blank Concentration Settings	
Evneriment	Benyter	Parameter 1
Experiment	Standard Samples of Quantitative Analysis	
Design		1
Data Sheet	Standard Sample	Concentration
🕈 Notes	STD1	0.00 pg/mL
d Report	S102	9.77 pg/mL
CBA Standard Assay UD Kit_P	STD4	39.06 pg/mL
1 Reads and Model	STD5	78.13 pg/mL
Dedus anu Mouer	STD6	156.25 pg/mL
2 Instrument Settings	STD7	312.50 pg/mL
3 Debris Hitering	STD8	625.00 pg/mL
4 Manual Clustering	STD9	1,250.00 pg/mL
5 Standards and QC	STD 10	2,500.00 pg/mL
6 Control Definition		
7 Standard Curves		
8 Results per Analyte		
9 Results per Sample		
10 Report		
	E Chow Terkisch ul Analutae	
	E Short a fairteada whaiy tea	
Administrator logged in		

- Assign concentration levels to the standard curves
- Manual entry or dilution profile calculator



Standard Curves



- Review standard curves
- Options: force through zero, axis scale (lin/log), curve type, weighting, fitting accuracy, colors



Results

North Entry I bold	FAR	Construction of the local division of the lo	<u> </u>	CBA Standard	I Assay UD - FCAP Array v3			1000						x
Description Sample Hear Packular fue fuence Sample Hear Readular fie Event X Mit So CV Neurosci CO Neurosci Co Number Ci Finance Ci Number Ci Finance Finance Finance Finance Finance Finance Fi	Home Settings	Data Type Final CC Chart Chart Chart Save Chart	rd Test Control Ex Results	port Print										0 -
1 Bedda and Medel 0Numan C0 10/6 5708 1-H1 Auto TubeO01	Experiment Design Data Sheet Notes Report CBA Standard Assay UD Kit_P	Analyte Name C4-Human Angiogenin C5-Human Basic FGF D7-Human C014 A4-Human C054 D9-Human C052 D8-Human C052 D8-Human C052 D7-Human C052	Sample Name Pot STD1 1-A1 STD2 1-B1 STD3 1-C1 STD4 1-D1 STD5 1-E1 STD6 1-F1 STD7 1-G1	sition Clustering Auto Auto Auto Auto Auto Auto Auto Auto	Results File Event # Tube_001 718 Tube_001 783 Tube_001 827 Tube_001 845 Tube_001 798 Tube_001 817	MFI 461.68 927.29 1,470.67 2,638.15 5,280.24 12,293.99 24,928.57	SD CV 125:33 26:66 % 223:30 21:24 % 305:75 18:31 % 501:69 18:47 % 939:89 17:71 % 2,338:04 16:53 % 4,641.05 18:34 %	Nominal CC 0.00 pg/mL 9.77 pg/mL 19.53 pg/mL 39.06 pg/mL 78.13 pg/mL 156.25 pg/mL 312.50 pg/mL	Fitted CC 0.00 pg/mL 9.90 pg/mL 19.62 pg/mL 38.40 pg/mL 75.95 pg/mL 163.80 pg/mL 310.22 pg/mL	Final CC 0.00 pg/mL 9.90 pg/mL 19.62 pg/mL 38.40 pg/mL 75.95 pg/mL 163.80 pg/mL 310.22 pg/mL	Recovery % 0.00 % 101.41 % 100.44 % 98.30 % 97.22 % 104.83 % 99.27 %	Dilution	QC Result N/A N/A N/A N/A N/A N/A N/A	Quali N/A N/A N/A N/A N/A N/A N/A
Results per sample 9 Results per sample 10 Report 2000 <t< th=""><th>Beads and Model Instrument Settings Debris Filtering Manual Clustering Standards and QC Control Definition Standard Curves</th><th>D6 - Human CD 106 B6 - Human CD 121a B7 - Human CD 121b C7 - Human CD 154/CD40L</th><th>STD8 1-H1 STD9 1-A2 STD10 1-B2 S001 1-A3 S002 1-B3</th><th>L Auto 2 Auto 2 Auto 3 Auto 4 Auto</th><th>Tube_001 833 Tube_001 840 Tube_001 875 Tube_001 835 Tube_001 1748</th><th>52,814.23 97,858.72 190,507.08 27,972.29 640.86</th><th>10,743.37 20.50 % 22,250.77 19.64 % 45,298.39 19.05 % 5,393.39 17.84 % 285.87 37.27 %</th><th>625.00 pg/mL 1,250.00 pg/mL 2,500.00 pg/mL N/A N/A</th><th>631.30 pg/mL 1,190.96 pg/mL 2,576.45 pg/mL 344.92 pg/mL 4.30 pg/mL</th><th>631.30 pg/mL 1,190.96 pg/mL 2,576.45 pg/mL 344.92 pg/mL 4.30 pg/mL</th><th>101.01 % 95.28 % 103.06 % N/A N/A</th><th>1 1 1 1 1</th><th>N/A N/A N/A N/A</th><th>N/A N/A N/A N/A N/A</th></t<>	Beads and Model Instrument Settings Debris Filtering Manual Clustering Standards and QC Control Definition Standard Curves	D6 - Human CD 106 B6 - Human CD 121a B7 - Human CD 121b C7 - Human CD 154/CD40L	STD8 1-H1 STD9 1-A2 STD10 1-B2 S001 1-A3 S002 1-B3	L Auto 2 Auto 2 Auto 3 Auto 4 Auto	Tube_001 833 Tube_001 840 Tube_001 875 Tube_001 835 Tube_001 1748	52,814.23 97,858.72 190,507.08 27,972.29 640.86	10,743.37 20.50 % 22,250.77 19.64 % 45,298.39 19.05 % 5,393.39 17.84 % 285.87 37.27 %	625.00 pg/mL 1,250.00 pg/mL 2,500.00 pg/mL N/A N/A	631.30 pg/mL 1,190.96 pg/mL 2,576.45 pg/mL 344.92 pg/mL 4.30 pg/mL	631.30 pg/mL 1,190.96 pg/mL 2,576.45 pg/mL 344.92 pg/mL 4.30 pg/mL	101.01 % 95.28 % 103.06 % N/A N/A	1 1 1 1 1	N/A N/A N/A N/A	N/A N/A N/A N/A N/A
400 200 9.00 19.62 38.40 75.95 163.80 4 4 5 5 5 5 163.80 4 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	Results per Analyte Results per Sample Report	C4 -	Human Angioc	genin - Final (0.22	2,576,45	4.32	Standard	Parameter X APC-A Parameter Y APC-Cy 00001 0001 001 01 01	7-4			* **		

- View raw data by analyte or by sample
- Chart options for visualization and export
 - Bar chart, 3D bar chart, polar chart



Additional Features

- Manual clustering available in instances when the automatic algorithm cannot identify all bead clusters
- Debris filtering available for cases when debris is causing the automatic algorithm to fail
- Summary reports available in PDF
- Raw data export to a spreadsheet
- Export standard curve and chart images as JPG, BMP, or PNG



Summary

- BD CBA reagents are available in two formats
 - BD CBA kits: preconfigured panels of ≤7 analytes
 - BD CBA flex sets: mix and match, up to 30 analytes
 - Flex sets also available in Enhanced Sensitivity format
 - Assay range: 274 to 200,000 fg/mL
- Compatibility with BD FACS[™] brand flow cytometers
- New FCAP Array v3.0 analysis software with intuitive workflow and enhanced features



Acknowledgment

BD Biosciences Trent Colville, Senior Product Manager, Marketing

Soft Flow Hungary György Lustyik, PhD, President Zoltán Mike, Lead Developer

For Research Use Only. Not for use in diagnostic or therapeutic procedures.

Cy[™] is a trademark of Amersham Biosciences Corp.

FCAP Array is a trademark of Soft Flow Hungary Ltd.

Mac is a registered trademark of Apple Computer, Inc.

Windows and Vista are registered trademarks of Microsoft Corporation.

BD, BD Logo and all other trademarks are property of Becton, Dickinson and Company. © 2011 BD

