

BD Biosciences Immunoassays

Tools for Cytokine and Chemokine Quantitation

Features

Multiple assay platforms to meet your laboratory needs

BD CBA for multiplexed detection and analysis

BD OptEIA for routine ELISA research applications

BD ELISPOT for determining the frequency of cytokine production

Tools and Techniques for Cytokine Quantitation

Tool/Technology	BD Cytometric Bead Array (CBA)	ELISA	ELISPOT
Molecules detected	Secreted or intracellular	Secreted	Secreted (in situ)
Multiparameter	Yes	No	No
Single-cell/cell-subset information	No	No	Frequencies, no subset information
Antigen-specific	Yes	Yes	Yes
Post-assay viability	Yes	Yes	No
Protein quantitation	Yes	Yes	No
Instrumentation	Flow cytometer	Spectrophotometer	ELISPOT reader

Choose from a large menu of optimized BD Biosciences tools for the cytokine specificity you want to quantitate, in the format you need.

BD™ Cytometric Bead Array (CBA): Multiplexed bead-based immunoassays

- **CBA Kits.** Preconfigured kits for simultaneous measurement of up to seven analytes
- **CBA Flex Sets.** Open and configurable bead-based reagents for flexible multiplex panel design
- **CBA Enhanced Sensitivity (ES) Flex Sets.** BD CBA Flex Sets with a new enhanced sensitivity level (0.274–200 pg/mL)

BD™ ELISA Reagents: Enzyme-based immunoassays

- **OptEIA™ Kits.** Ready-to-use plates and reagents for streamlined protein quantitation
- **OptEIA™ Sets.** Pre-titered sets of ELISA antibody pairs, enzyme reagent, and protein standard; available as a unit for processing up to twenty 96-well plates
- **ELISA-Matched Antibody Pairs.** Reagents available individually:
 - Matched pair capture antibodies (unlabeled)
 - Matched pair detection antibodies (biotinylated)
 - Matched pair standards (recombinant protein)

BD™ ELISPOT Reagents: Enzyme-linked immunospot assays for detecting and analyzing individual cells that secrete a particular protein in vitro

- **BD™ ELISPOT Kits.** Ready-to-run combinations of plates and reagents
- **BD™ ELISPOT Sets.** Coat-it-yourself plates
- **BD™ ELISPOT Pairs.** Matched antibody pairs for high flexibility

Visit bdbiosciences.com for more information.

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Human specificities (continued)

Description	CBA			ELISA					ELISPOT		
	Kit	Flex Set	ES Flex Set	Kit	Set	Matched Pair Capture	Matched Pair Detection	Matched Pair Standard	Kit	Set	Pair
IL-17F		562151									
IL-21		560358				558503	558502				
IP-10	552990	558280			550926	555046	555048	551130			
I-TAC		560364									
LT- α (TNF- β)		560083			550995	551222	554555	554619			
MCP-1	552990	558287		559017	555179	551226 555055	554664	554620			
MCP-3						551228	555034	554629			
MIG	552990	558286			550998	555038	555037	554636			
MIP-1 α		558325									
MIP-1 β		558288									
RANTES	552990	558324									
TGF- β 1		560429			559119	555052	555053				
Soluble TNFRI (CD120a)		560156				552535	552536				
Soluble TNFRII (CD120b)		560155									
TNF	551811 551809 550749 560484	560112 558273	561516	550610	555212	551220	554511	554618		551446	551882
TRAIL					550948						
VEGF		558336									

Rat specificities

Description	CBA		ELISA					ELISPOT
	Flex Set		Kit	Set	Matched Pair Capture	Matched Pair Detection	Matched Pair Standard	Set
C-Reactive Protein (CRP)			557825					
IFN- γ	558305			558861				557819
IL-1 α	560159							
IL-2	561420							
IL-4	558307			555198	555080	555090	555107	
IL-6				550319	550644	550642	557008	
IL-10	558306			555134	555083	555084	555113	
MCP-1				555130	555072	555074	555110	
TGF- β				559119	555052	555053		
TNF	558309		560479	558535	557516	557432 558415	555109	

Mouse specificities

Description	CBA			ELISA					ELISPOT		
	Kit	Flex Set	ES Flex Set	Kit	Set	Matched Pair Capture	Matched Pair Detection	Matched Pair Standard	Kit	Set	Pair
C3a						558250	558251	558618			
C5a						558027	558028	622597			
CD62E (E-Selectin)		560384									
CD62L (L-Selectin)		560385									
G-CSF		560152									
GM-CSF		558347			555167	554404	554407	554586			
IFN- γ	552364 551287 560485	558296	562233	558258	555138 551866	551216 551309	554410	554587	552569	551083	551881
IL-1 α		560157			550347	550604	550606				
IL-1 β		560232	562278		559603	550605	554577				
IL-2	551287 560485	558297	562262		555148	554424	554426	550069		551076	551876
IL-3		558346			555228	554381	554384	554579	557937		
IL-4	551287 560485	558298	562272		555232	554387 554434	554390	550067		551017	551878
IL-5	551287	558302	562234		555236	554393	554397	554581		551075	551880
IL-6	552364 560485	558301	562236	550950	555240	554400	554402	554582		552567	
IL-9		558348				551218	554473				
IL-10	552364 560485	558300	562263		555252	551215	554423 554465	550070			557982
IL-12 (p40)					555165	551219	554476	554594			
IL-12 (p70)	552364	558303	562264		555256	554658	554476	554592			
IL-12/IL-23p40		560151									
IL-13		558349	562273								
IL-17A	560485	560283	562261			555068	555067				
IL-17F		562174									
IL-21		560160									
IL-23 p19/p40		562575									
KC		558340									
MCP-1		558342			555260	551217	554444	554590			
MIG		558341									
MIP-1 α		558449									
MIP-1 β		558343									
RANTES		558345									
TGF- β					559119	555052	555053				
TNF	552364 551287 560485	558299	562336	560478 550487	555268 558534	557516 551225	557432 554415 558415	554589		551491	551875



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