



Immunoassays for Cytokine and Chemokine Quantitation

Choose from a large menu of tools optimized to quantitate your cytokines and chemokines of interest, available in multiple formats to meet your specific needs.

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: CBA Flex sets with an enhanced sensitivity level (0.274–200 pg/mL)

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 (available individually):
 - Matched capture antibodies (unlabeled)
 - Matched detection antibodies (biotinylated)
 - Matched standards (recombinant protein)

ELISPOT reagents: Enzyme-linked immunospot assays

- ELISPOT sets: Coat-it-yourself plates
- ELISPOT pairs: Matched antibody pairs for high flexibility

Tools and Techniques for Cytokine and Chemokine Quantitation

	BD® Cytometric Bead Array (CBA)	ELISA	ELISPOT
Molecules Detected	Secreted or intracellular	Secreted	Secreted (in situ)
Multiplex	Yes	No	No
Single-Cell	No	No	Frequencies, no subset information
Post Assay Viability	Yes	Yes	No
Protein Quantitation	Yes	Yes	No
Instrumentation	Flow cytometer	Spectrophotometer	ELISPOT reader

Human specificities

Description	CBA			ELISA					ELISPOT	
	Kit	Flex Set	ES Flex Set	Kit	Set	Matched Capture Antibody	Matched Detection Antibody	Matched Standard	Set	Pair
Angiogenin		558328								
Basic FGF		558327								
C3a	561418			550499						
C4a	561418			550947						
C5a	561418			557965						
C5b-9					558315					
sCD14		560418								
CD54 (ICAM-1)		560269								
CD62E (E-Selectin)		560419								
CD62L (L-Selectin)		560420								
CD62P (P-Selectin)		560426								
CD106 (VCAM-1)		560427								
sCD121a		560276								
sCD121b		560281								
sCD154 (sCD40 Ligand)		560305					552560			
CD178 (Fas Ligand)		558330								
Eotaxin		558329				555035	555060			
Fractalkine		560265								
G-CSF		558326					554670			
GM-CSF		558335			555126	554502	554505	550068		
Granzyme A		560299								
Granzyme B		560304							552572	
IFN- α		560379								
IFN- γ	551809 550749 560484	560111 558269	561515	550612	555142	551221	554550	554616 554617	551849	551873
IL-1 α	551811	560153								
IL-1 β		558279	561509	557966	557953					
IL-2	551809 560749 560484	558270	561517	550611	555190	555051	555040	554603	551282	
IL-2sR α (sCD25)					559104					
IL-3		558355				554672	554674	554604		
IL-4	551809 550749 560484	558272	561510	550614	555194	554515 556917	554483	554605	551084	
IL-5	550749	558278	561511		555202	554393 554488	554491	554606	551085	
IL-6	551811 551809 560484	558276	561512	550799	555220	554543	554546	550071		
IL-6R α (CD126)						551462	552503			
IL-7		558334				554493	554494	554608		
IL-8	552990 551811	558277	561513	550999	555244	554716	554718	554609		
IL-9		558333								
IL-10	551811 551809 550749 560484	558274	561514	550613	555157	554705 554479	554499	554611	551018	
IL-11		560228								
IL-12 (p40)				551116	555171	551227	554660	554633		
IL-12 (p70)	551811	558283		559258	555183	555065	554660	554613		
IL-12/IL-23p40		560154								
IL-13		558450				554570	555054			
IL-15					559268	554712	554713	560254		
IL-17A	560484	560383	562143							

Human specificities (continued)

Description	CBA			ELISA					ELISPOT	
	Kit	Flex Set	ES Flex Set	Kit	Set	Matched Capture Antibody	Matched Detection Antibody	Matched Standard	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				551222	554555	554619		
MCP-1	552990	558287		559017	555179	555055	554664	554620		
MIG	552990	558286				555038	555037	554636		
MIP-1 α		558325								
RANTES		558324								
TGF- β 1		560429				555052	555053			
Soluble TNFRI (CDI20a)		560156				552535	552536			
Soluble TNFRII (CDI20b)		560155								
TNF	551811 551809 550749 560484	560112 558273	561516	550610	555212	551220	554511	554618		
TRAIL					550948					
VEGF		558329								

Rat specificities

Description	CBA		ELISA				
	Flex Set		Kit	Set	Matched Capture Antibody	Matched Detection Antibody	Matched Standard
IFN- γ	558305						
IL-1 α	560159						
IL-2	561420						
IL-4	558307			555198	555080		
IL-6				550319	550644		555107
IL-10	558306			555134	555083	555084	557008
MCP-1				555130	555072	555074	
TGF- β					555052	555053	555110
TNF	558309		560479	555198	557516	558415	555109

Mouse specificities

Description	CBA			ELISA					ELISPOT	
	Kit	Flex Set	ES Flex Set	Kit	Set	Matched Capture Antibody	Matched Detection Antibody	Matched Standard	Set	Pair
C3α						558250	558251	558618		
C5α						558027	558028	622597		
CD62E (E-Selectin)		560384								
CD62L (L-Selectin)		560385								
G-CSF		560152								
GM-CSF					555167	554404	554407	554586		
IFN-γ	552364 551287 560485	558296	562233	558258	555138 551866	551216 551309	554410	554587	551083	551881
IL-1α		560157								
IL-1β		560232	562278							
IL-2	551287 560485	558297	562262		555148	554424	554426	550069	551076	551876
IL-3		558346				554381		554579	551017	551878
IL-4	551287 560485	558298	562272		555232	554387 554434	554390	550067		
IL-5	551287	558302	562234		555236	554393	554397	554581		
IL-6	552364 560485	558301	562236	550950	555240	554400	554402	554582	551075	
IL-10	552364 560485	558300	562263		555252	551215	554423 554465	550070		557982
IL-12 (p40)	552364					551219	554476	554594		
IL-12 (p70)		558303	562264		555256	554658	554476	554592		
IL-12/IL-23p40		560115								
IL-13		558349	562273							
IL-17A	560485	560283	562261			555068	555067			
IL-17F		562174								
IL-21		560160								
KC		558340								
MCP-1		558342			555260	551217	554444	554590		
MIG		558241								
MIP-1α		558449								
MIP-1β		558343								
RANTES		558345								
TGF-β						555052	555053			
TNF	551811 551809 560484	558299	562336	560478 550487	555268 558534	557516 551225	554415 558415	554589	551491	551875

Immunoassay Companion Reagents

Description Cat. No.

BD OptEIA™ Reagent Set A	550536
BD OptEIA™ Reagent Set B	550534
BD OptEIA™ TMB Substrate Reagent Set	555214
BD™ ELISPOT AEC Substrate Set	551951
BD OptEIA™ Assay Diluent	555213
BD Pharmingen™ Streptavidin HRP 50 ML	550946
BD Pharmingen™ Streptavidin HRP 1 ML	554066
BD™ ELISPOT HRP Streptavidin for ELISPOT	557630

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