



## Diaclone DIAplex, Human Th1/Th2/Inflammation

Multiple analyte detection by flow cytometry

Different populations of CD4+ T-Cells secrete differing patterns of cytokines that can lead to differing immune responses. The T Helper Type-1 (Th1) or Type-2 (Th2) cell cytokines can direct an antigenic response towards either a cell mediated or a humoral immune response respectively. The Th1 and Th2 cytokines cross regulate each other providing a mechanism for regulation of immune responses. A new subset of T helper cells that predominantly produce IL-17 (Th17 cells) are believed to be the major cell type involved in the induction of various pro-inflammatory cytokines.

### FLEXIBLE BY DESIGN

DIAplex Complete provides multiplex assay sets which are preconfigured for the detection of a panel of analytes for investigation of a specific scientific area. An individual experiment can provide measurements of several analytes from a single sample.

#### DIAplex Complete ready configured detection panels:

Panel Cat No.	Th1 880.110.004	Th2 880.120.003	Th1 / Th2 880.140.007	Inflammation 880.130.004	Th1 / Th2 / Inflammation 880.100.010
IFN-γ	■		■		■
IL-2	■		■		■
IL-12p70	■		■		■
TNFα	■		■	■	■
IL-4		■	■		■
IL-6		■	■		■
IL-10		■	■		■
IL-8				■	■
IL-17a				■	■
IL-1β				■	■

DIAplex Design combines the benefits of multiplexing with the ability to design your own analyte detection panel. The assays have been designed for use individually (simplex) or combined to create any size flex system. Each combination is supplied with a DIAplex accessory kit.

#### DIAplex Design – design your own panel from the following:

<input checked="" type="checkbox"/>	Cat no.	<input checked="" type="checkbox"/>	Cat no.
<input type="checkbox"/> IFN-γ	880.000.001	<input type="checkbox"/> IL-4	880.020.001
<input type="checkbox"/> IL-2	880.010.001	<input type="checkbox"/> IL-17a	880.940.001
<input type="checkbox"/> IL-10	880.060.001	<input type="checkbox"/> IL-1β	880.006.001
<input type="checkbox"/> IL-8	880.050.001	<input type="checkbox"/> TNFα	880.090.001
<input type="checkbox"/> IL-6	880.030.001	<input type="checkbox"/> IL-12p70	880.070.001

### INTENDED USE

DIAplex Human Th1 / Th2 / Inflammation is a multiplexed fluorescent bead-based immunoassay for the quantification of multiple human cytokines in serum and culture supernatants by Flow Cytometry: IFN-γ, TNF-α, IL-1β, IL-2, IL-4, IL-6, IL-8, IL-10, IL-12p70 and IL-17a

### VERSATILITY & SIMPLICITY

- Measure up to 10 analytes simultaneously from a small sample volume
- Choose from ready configured detection panels or create your own
- Simple to use software provided free of charge
- Test either serum, plasma or cell culture supernatants
- Compatible with most flow cytometers

### EFFICIENCY & RELIABILITY

- Cost effective & time saving with multiple results from a single experiment
- NIBSC standard calibration
- Robust validation
- Accurate quantitative results





## DIAPlex

DIAPlex is a sensitive multiplex fluorescent bead-based immunoassay for the simultaneous quantification of multiple analytes from a single sample by flow cytometry.

Utilising bead populations with distinct fluorescence intensities and unique antibody specificities DIAPlex can accurately measure multiple analytes in a single sample with a significantly reduced assay time and sample volume requirement when compared to traditional ELISA techniques.

## PRODUCT RANGE

With over 20 years experience and extensive expertise we are committed to providing excellence in Monoclonal Antibody and Immunoassay development

Other products available:



Monoclonal Antibodies



ELISA



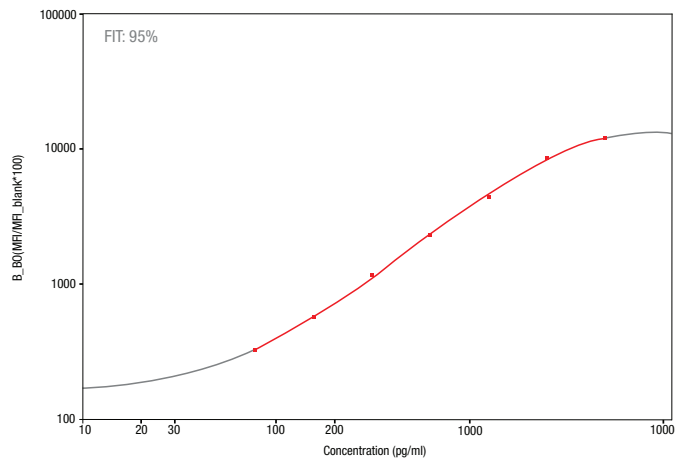
ELISpot

With the benefits of specific, sensitive and reliable measurement of multiple analytes in a single sample combined with significantly reduced assay times and sample volume requirements, Diaclone DIAPlex is the clear choice to

### Fast Track Your Research...

## Diaclone DIAPlex PRO SOFTWARE

The Diaclone DIAPlex Pro software is a simple to use tool enabling complete analysis of data files in minimal time after assay completion. Sample analyte concentrations are automatically calculated by comparison to a standard curve which is generated by the software and a comprehensive analysis report generated. Software and instructions for use available free of charge.



## DIAPlex HUMAN Th1 / Th2 / INFLAMMATION SPECIFICATIONS

<b>Product Name</b>	Diaclone DIAPlex Human Th1 / Th2 / Inflammation			
<b>Analytes</b>	IFN- $\gamma$ ; IL-2; IL-10; IL-8; IL-6; IL-4; IL-17a; IL-1 $\beta$ ; TNF $\alpha$ ; IL-12p70			
<b>Species</b>	Human			
<b>Format</b>	DIAPlex for Flow Cytometry – multiple analyte detection			
<b>Label</b>	Biotin / Streptavidin - PE			
<b>Quantity / Tests</b>	96 tests per analyte			
<b>Standard Range</b>	78 - 5000 pg/ml			
<b>Sample Volume Required</b>	50 $\mu$ L for the single measurement of up to 10 analytes			
<b>Incubation Time</b>	180 min			
<b>Sensitivity (LOD)</b>	IFN- $\gamma$	0.8 pg/mL	IL-4	4.3 pg/mL
	IL-2	12.4 pg/mL	IL-17a	8.7 pg/mL
	IL-10	1.7 pg/mL	IL-1 $\beta$	3.5 pg/mL
	IL-8	1.3 pg/mL	TNF $\alpha$	9.8 pg/mL
	IL-6	1.4 pg/mL	IL-12p70	3.4 pg/mL
<b>Mean Intra-assay CV</b>	5.8%			
<b>Mean Inter-assay CV</b>	5.7%			
<b>Suitable Samples</b>	Cell culture supernatant, serum and plasma			

