abcam

Product datasheet

Cytokine Array - Human Cytokine Antibody Array (Membrane, 42 Targets) ab133997

24 References 5 Images

Overview

Product name Cytokine Array - Human Cytokine Antibody Array (Membrane, 42 Targets)

Sample type Cell culture supernatant, Saliva, Milk, Urine, Serum, Plasma, Cell culture extracts, Other biological

fluids, Whole Blood, Tissue Extracts, Cell Lysate, Cell culture media

Assay type Semi-quantitative

Species reactivity Reacts with: Human

Product overview ab133997 is a cytokine array to be used for the simultaneous detection of 42 Human cytokines. It

is suitable for all sample types.

Targets: ENA-78, GCSF, GM-CSF, GRO, GRO-alpha, I-309, IL-1alpha, IL-1beta, IL-2, IL-3, IL-4, IL-5, IL-6, IL-7, IL-8, IL-10, IL-12 p40/p70, IL-13, IL-15, IFN-gamma, MCP-1, MCP-2, MCP-3, MCSF, MDC, MIG, MIP-1delta, RANTES, SCF, SDF-1, TARC, TGF-beta1, TNF-alpha, TNF-beta, EGF, IGF-I, Angiogenin, Oncostatin M, Thrombopoietin, VEGF-A, PDGF BB, Leptin

Cytokine arrays are an antibody-pair-based assay, analogous to ELISA, but using a membrane as a substrate rather than a plate. Capture antibodies are supplied arrayed/spotted on a membrane with each pair of spots representing a different analyte. Sample is added (0.2-1ml of 1 sample to each membrane), and then paired biotinylated detector antibodies and streptavidin HRP. The cytokine array is analyzed using the same methods as a chemiluminescent western blot. Comparison between samples can be by eye or using densitometry software for a semi-quantitative comparison.

Learn more about cytokine arrays and other membrane antibody arrays

If you are interested in this cytokine array, cytokine array ab133998, ab133996, ab169817,

ab134003, ab134000, ab169804 and ab169805 may also be of interest.

A table listing all of our human membrane antibody cytokine arrays and other arrays and

the analytes they measure is available <u>here</u>.

Abcam has not and does not intend to apply for the REACH Authorisation of customers' uses of products that contain European Authorisation list (Annex XIV) substances.

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Notes

It is the responsibility of our customers to check the necessity of application of REACH Authorisation, and any other relevant authorisations, for their intended uses.

Tested applications

Suitable for: Multiplex Protein Detection

Properties

Storage instructions

Store at -20°C. Please refer to protocols.

| Components | 1 x 4 Membranes | 1 x 8 Membranes |
|------------------------------------|-----------------|-----------------|
| 1,000X HRP-Conjugated Streptavidin | 1 x 50µl | 1 x 50µl |
| 1X Blocking Buffer | 1 x 25ml | 2 x 25ml |
| 20X Wash Buffer I | 1 x 10ml | 1 x 20ml |
| 20X Wash Buffer II | 1 x 10ml | 1 x 20ml |
| 2X Cell Lysis Buffer | 1 x 10ml | 1 x 16ml |
| 8-Well Incubation Tray (with Lid) | 1 unit | 1 unit |
| Biotin-Conjugated Anti-Cytokines | 2 vials | 4 vials |
| Cytokine Antibody Array Membranes | 4 units | 8 units |
| Detection Buffer C | 1 x 1.5ml | 1 x 2.5ml |
| Detection Buffer D | 1 x 1.5ml | 1 x 2.5ml |

Applications

The Abpromise guarantee Our <u>Abpromise guarantee</u> covers the use of ab133997 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

| Application | Abreviews | Notes |
|-----------------------------|-----------|--|
| Multiplex Protein Detection | | Use at an assay dependent concentration. |

Images

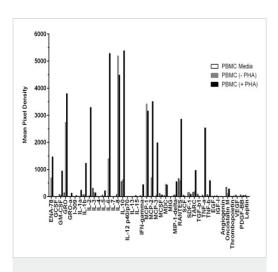
| PBMC Media | | | PBMC (-PHA) | | | | | | PBMC (+PHA) | | | | | | | |
|------------|---|---|-------------|---|--|---|--|--|-------------|---|---|----|--|---|--|--|
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Multiplex Protein Detection - Human Cytokine Array
- Membrane Antibody Array

Control Treatment

Cytokine array testing image - Abreview

This image is courtesy of an anonymous Abreview.



Quantification of Human Cytokine Array (membrane antibody array)

Human peripheral blood cells ($1x10^6$ cells/mL) were cultured in RPMI media supplemented with 10% fetal calf serum, 100 U/mL penicillin, and 100 mg/mL streptomycin sulfate.

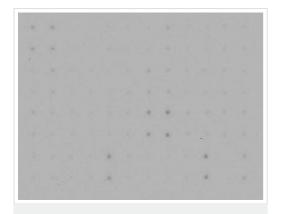
Cells were cultured unstimulated or stimulated with 10 μ g/mL PHA. Conditioned media was harvested after 48 hours, aliquoted and assayed using ab133997. Media alone was used as a negative control.

The antibody array was used to determine the change in expression of cytokines related to cell proliferation.

One million Human breast cancer cells (MCF7) were cultured in a 10mm dish for 48 hours (in 8ml of RPMI-1640 medium) and were then treated with 5 mM Compound X (not disclosed) for 48 hours. The Abcam protocol was followed for the rest of the procedure. 1 mL of supernatant of culture medium was used for sample incubation (4°C overnight).

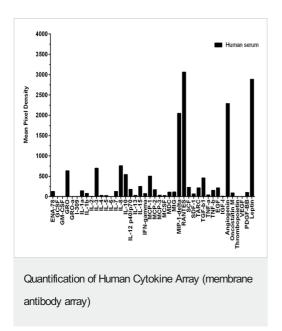
Rating: 4.5/5

Cells were cultured unstimulated or stimulated with 10 μ g/mL PHA. Conditioned media was harvested after 48 hours, aliquoted and assayed using ab133997. Media alone was used as a negative control. Mean pixel density was quantified using CCD camera software analysis.



Human serum from a pooled donor (n=50) sample was diluted to 50% and assayed using ab133997.

Multiplex Protein Detection - Human Cytokine Array - (membrane antibody array) (ab133997)



Human serum from a pooled donor (n=50) sample was diluted to 50% and assayed using ab133997. Mean pixel density was quantified using CCD camera software analysis.

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