

Datasheet for ABIN4956089
Rat Inflammation Array Q1



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Overview

Quantity:	50 samples
Reactivity:	Rat
Method Type:	Sandwich ELISA
Application:	Antibody Array (AA), Multiplex ELISA (mpELISA)

Product Details

Purpose:	Quantibody® Rat Inflammation Array 1 Kit. Detects 10 Rat Inflammatory Factors. Suitable for all liquid sample types.
Sample Type:	Cell Culture Supernatant, Cell Lysate, Plasma, Serum, Tissue Lysate
Analytical Method:	Quantitative
Detection Method:	Fluorometric
Specificity:	IFN-gamma, IL-1 alpha (IL-1 F1), IL-1 beta (IL-1 F2), IL-2, IL-4, IL-6, IL-10, IL-13, MCP-1 (CCL2), TNF alpha
Characteristics:	<ul style="list-style-type: none"> • Running an array is like running dozens of ELISAs simultaneously. • Quantibody arrays are stunningly simple to use, read, and analyze. • Each panel can quantify up to 40 different biomarkers simultaneously, and individual panels can be multiplexed to quantify as many as 660 different biomarkers at one time. • The entire process can be completed in just 4-6 hours. • More cost-effective than traditional ELISA • High specificity and system reproducibility • Suitable for diverse sample types • Low sample volume requirement: 50 µL or less • Well-suited for high throughput assays

Product Details

- More cost-effective than traditional ELISA
- High specificity and system reproducibility
- Suitable for diverse sample types
- Low sample volume requirement: 50 µL or less
- Get results same day (6-hour processing time)
- Well-suited for high throughput assays
- Q Analyzer software provides one-step computation

Components:	Glass Chip with antibody arrays
	Sample Diluent
	Lyophilized protein standard mix
	Detection antibody cocktail
	Streptavidin-Fluorescent dye
	Wash buffer

Material not included:	Distilled or deionized water
	Small plastic boxes or containers
	Pipettors, pipette tips and other common lab consumables
	Orbital shaker or oscillating rocker
	Aluminum foil
	Gene microarray scanner or similar laser fluorescence scanner

Application Details

Application Notes:	Completely cover array area with sample or buffer during incubation. Avoid foaming during incubation steps. Perform all incubation and wash steps under gentle rocking or rotation. Cover the incubation chamber with adhesive film during incubation, particularly when incubation is more than 2 hours or <70 µL of sample or reagent is used. Several incubation steps such as step 6 (blocking), step 7 (sample incubation), step 10 (detection antibody incubation), or step 13 (Cy3 equivalent dyestreptavidin incubation) may be done overnight at 4 °C. Please make sure to cover the incubation chamber tightly to prevent evaporation.
Comment:	<p>The Quantibody arrays are quantitative multiplex ELISA arrays featuring fluorescent detection. The antibodies are spotted on glass slide solid supports and require a laser scanner for data collection. Cytokine standards are provided with the array for calculation of target protein concentrations.</p> <p>All Quantibody arrays feature the sandwich immunoassay principle, utilizing an immobilized capture antibody along with a corresponding biotinylated detection antibody.</p>

Application Details

Sample Volume:	100 µL
Plate:	Glass Slide
Protocol:	<ol style="list-style-type: none">1. Each Quantibody array starts with a single glass microscope slide, which acts as a support for the array. Slides are segmented using a rubber gasket. Up to 8 samples may assayed using a single slide.2. Antibodies against a variety of different antigens (up to 40 biomarkers per slide) are printed onto the glass slide. Replicates are included, saving you both time and precious sample volume.3. The end-user adds either known concentration standards (included) or aqueous sample to each well on the slide. Antibodies on the slide capture antigen off from the sample or standard.4. The end-user adds a detection mix containing paired antibodies (compatible with the primaries pre-coated on the slide) conjugated to a fluorescent dye for detection.5. Fluorescent signal from each spot is read using a laser slide scanner. The intensity from each spot is compared to the standard curve, and a quantitative expression profile for relevant biomarkers is established.
Restrictions:	For Research Use only

Handling

Handling Advice:	Do not touch the surface of the slides, as the microarray slides are very sensitive. Hold the slides by the edges only. Handle all buffers and slides with powder free gloves. Handle glass slide/s in clean environment. The Quantibody slides do not have bar codes. To help distinguish one slide from another, transcribe the slide serial number from the slide bag to the back of the slide with an ultra-fine point permanent marker. Please Note:Red permanent marker can significantly interfere with fluorescent signal detection. We recommend marking your slides with a green, blue or black ultra-fine point permanent marker. Please write the number on the very bottom edge of the slide. Do not write on the arrayed well areas.
Storage:	-20 °C
Storage Comment:	For best results, store the entire kit frozen at -20°C upon arrival. Stored frozen, the kit will be stable for at least 6 months which is the duration of the product warranty period. Once thawed, store array slide(s), standard mix, detection antibody cocktail, and Cy3-Conjugated Streptavidin at -20°C and all other reagents undiluted at 4°C for no more than 3 months.

Publications

Product cited in:	Zheng, Pan, Wang, Liu, Shi, Ding: "HMGB1 Turns Renal Tubular Epithelial Cells into
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Inflammatory Promoters by Interacting with TLR4 During Sepsis." in: **Journal of interferon & cytokine research : the official journal of the International Society for Interferon and Cytokine Research**, Vol. 36, Issue 1, pp. 9-19, (2016) ([PubMed](#)).

Chang, Jia, Sun, Xu, Wu, Zhang, Wei: "APRIL promotes proliferation, secretion and invasion of fibroblast-like synoviocyte from rats with adjuvant induced arthritis." in: **Molecular immunology**, Vol. 64, Issue 1, pp. 90-8, (2015) ([PubMed](#)).

Jiang, Zhang, Tian, Wang, Zhao, Wang, Li, Liu, Li, Zhang, Guan: "The monoacylglycerol lipase inhibitor JZL184 decreases inflammatory response in skeletal muscle contusion in rats." in: **European journal of pharmacology**, Vol. 761, pp. 1-10, (2015) ([PubMed](#)).

Zhang, Jiang, Tian, Wang, Zhao, Wang, Li, Liu, Li, Zhang, Guan: "CB2R orchestrates fibrogenesis through regulation of inflammatory response during the repair of skeletal muscle contusion." in: **International journal of clinical and experimental pathology**, Vol. 8, Issue 4, pp. 3491-502, (2015) ([PubMed](#)).

Willett, Thote, Lin, Moran, Raji, Sridaran, Stevens, Guldberg: "Intra-articular injection of micronized dehydrated human amnion/chorion membrane attenuates osteoarthritis development." in: **Arthritis research & therapy**, Vol. 16, Issue 1, pp. R47, (2014) ([PubMed](#)).