



XCellCure, LLC AMiAware© Quantibody Cardiac Microarray
Novel Multiplex MicroArray Using Evidence Based Prognostic and Diagnostic Markers
Reporting the Earliest Warning of a Heart Attack and Cardiac Tissue Necrosis

AMiAware © Cardiac Microarray quantitatively detects MIP1-alpha, RANTES, PARC, HFABP, dPaPPA, hsCRP, hs cTnI, PIGF, Nt-proBNP, IP-10, MIC-1, MCP-1, Cystatin C ^{Patents pending}

- **Proprietary new cardiac biomarker panel provides rapid and sensitive state-of-the-art prognostic insight on heart tissue damage and tissue viability;**
- **Broadest combination of prognostic and diagnostic cardiac markers available to optimize convenience and efficiency;**
- **Provides critical information to support prognosis and clinical treatment protocols.**

Prognostic capabilities offer the first insight into the earliest changes of the coronary vessels that preclude events leading to an Acute Myocardial Infarction (AMI). Easily monitor Cardiac tissue damage after an Acute Myocardial Infarction (AMI) with the XCellCure, LLC AMiAware[©] Quantibody microarray. This multiplex microarray delivers essential information for understanding processes that lead to heart tissue damage, helps guide treatment to avoid heart tissue damage, and lends critical diagnostic information to inform treatment decisions to improve cardiac function.

XCellCure, LLC AMiAware© provides an ideal marker combination to Monitor the Healing Process of Tissue Heart failure results from dead or dying cardiac myocytes. The AMiAware[©] Microarray includes circulating protein biomarkers that when deviated from normal levels lend information to recognize the damaged tissue's potential for healing, supporting selection of protocols.

Cardiac Microarray Ideal for Studies Evaluating

- **Earliest Detection of Acute Coronary Syndrome (ACS)**
- **Triage Patients with Cardiac Arrhythmia**
- **Cardiac Health to Guide Cardiac Rehabilitation Regimen**
- **AMI and Progression of Cardiac Tissue Healing Post AMI**
- **Monitor the Progression of COPD**
- **Data for TIMI Score for ER Patient Triage**
- **Cardiac Response to Resynchronization Therapy**
- **Evaluate Cardiac Health Before/During Chemotherapy**
- **Cardiac Response to Drug Therapy**
- **Evaluating Inflammatory Syndromes**

For ordering information call 877-997-3360 go to www.xcellcure.com

Rapid Meaningful Results Leading to Improved Decisions

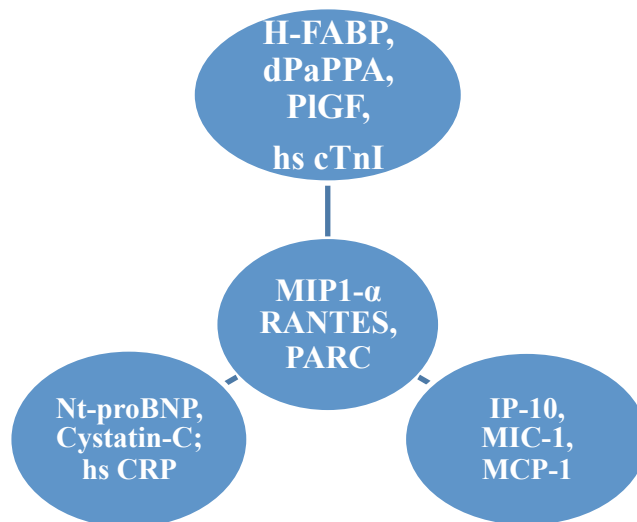


Figure 1. AMiAware® Cardiac Microarray Detects Cardiac Damage and Tissue Remodeling

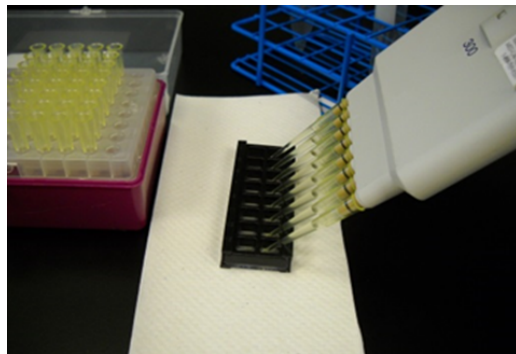


Figure 2. The AMiAware© Cardiac Microarray uses an 8 channel micropipette

AMiAware© with its multiplexed ELISA technology is the first focused, single dilution, single read, targeted analyte, system delivering improved efficiency and reduced cost when measuring multiple protein markers. Each marker's detection sensitivity range is consistent with the levels reported in the published literature, including high sensitive cardiac troponin.

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Advantage	Novel Design	Value to Your Budget
Rapid method for obtaining results from plasma or serum using a single dilution on 13 critical cardiovascular markers	Novel antibody combination and wide dynamic range allows for detection of widely disparate blood levels between individual markers. Each marker range targeted for relevant clinical plasma levels.	Reduces both costs and time to obtain needed information.
Receive results of 13 critical proteins in quadruplicate.	Microarray format allows for quadruplicates/well. Software analysis tool quickly extrapolates and summarizes data.	Highly cost effective option reducing the cost to measure these markers by several fold.
High sensitivity and specificity with the features inherent in microarray format.	Spatial format and easily visualized results in microarray platform allows for high confidence in result interpretation. Fluorescent detection provides high sensitivity and dynamic range.	Reliable consistent results using a wide range of cost effective instrumentation platforms.
Faster results meeting publication timeline.	Rapid results reporting of clinical measures in large cohort studies.	Reduces the cost of critical measures when conducting clinical trials
Patents pending prognostic markers to aid prediction of impending cardiovascular events.	Novel microarray including MIP-1 alpha, RANTES and PARC combined <i>for the first time</i> with hs cTnI reporting earliest events leading to an AMI plus hs cTnI to detect an AMI in progress.	Prognostic capabilities to gain understanding of cardiac function when other indicators are negative.
Ordering Information	877-997-3360 www.xcellcure.com	Speak to a Technical Expert

Analyte	Novel Sensitivity Range Detected at 1 Dilution
MIP-1 α	1000pg/mL - 0.5pg/mL
RANTES	200ng/mL-0.1ng/mL
PARC	200ng/mL-0.1ng/mL
H-FABP	100ng/mL-0.05ng/mL
dPaPPA	200ng/mL-0.1ng/mL
hsCRP	10,000ng/mL-5ng/ml
hs cTnI	20,000pg/mL-10pg/mL
PIGF	2000pg/mL-1pg/mL
Nt-proBNP	4000pg/mL-2pg/mL
IP-10	1000pg/mL-0.5pg/mL
MIC-1	1000pg/mL-0.5pg/mL
MCP-1	1000pg/mL-0.5pg/mL
Cystatin C	5000pg/mL-2ng/ml

AMiAware © Cardiac Microarray Specifications

AMiAware © Cardiac Microarray uses the Quantibody Multiplex ELISA Quantitative Sandwich-Based Glass Slide Array

Quantibody® is an array-based multiplex ELISA system for simultaneous quantitative measurement of multiple markers. Quantibody® combines the high specificity and sensitivity of ELISA with the high throughput of the glass chip-based array. With this platform, only 50 µL of sample is needed for quantification of up to 13 proteins in quadruplicate, making this array 80 times more efficient than traditional ELISA.

Get 4x the data, plus high throughput: Each 75mm x 25mm glass slide has 16 identical antibody arrays (also called “subarrays”). Within each subarray, the capture antibodies along with controls are spotted in quadruplicate. The slide comes with a 16-well removable gasket and chamber assembly that allows for simultaneous processing of up to 16 samples per slide. For even higher throughput, 4 slides can be nested into a tray matching a standard microplate, thus allowing automated processing of 64 arrays simultaneously. Because the latest automated liquid handling work stations can accommodate several trays at once, hundreds of samples can be processed daily.

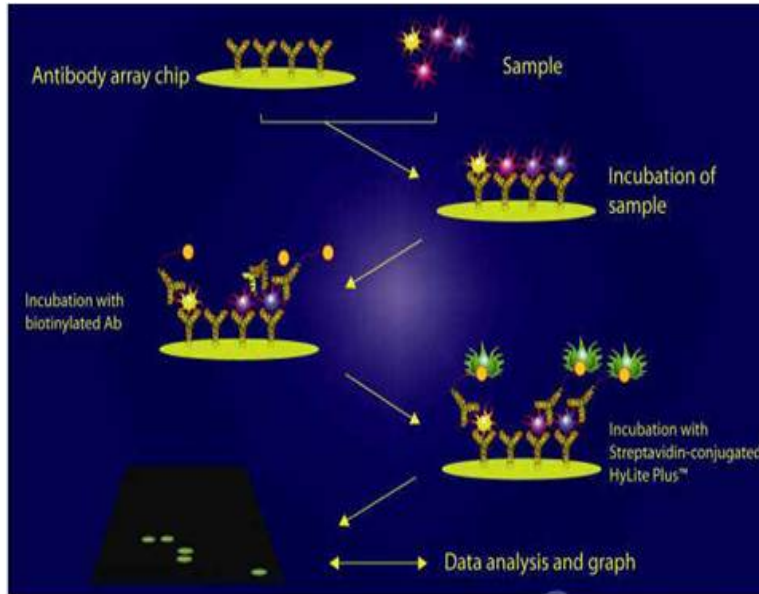
Novel Design

- Less sample, more data: just 50 µL of sample for quantification of 13 markers
- 6 to 8 hour to results
- More cost-effective than Plate ELISA
- No interference between capture antibodies (unlike bead-based multiplex assays)
- No dedicated equipment required

Kit Contains*

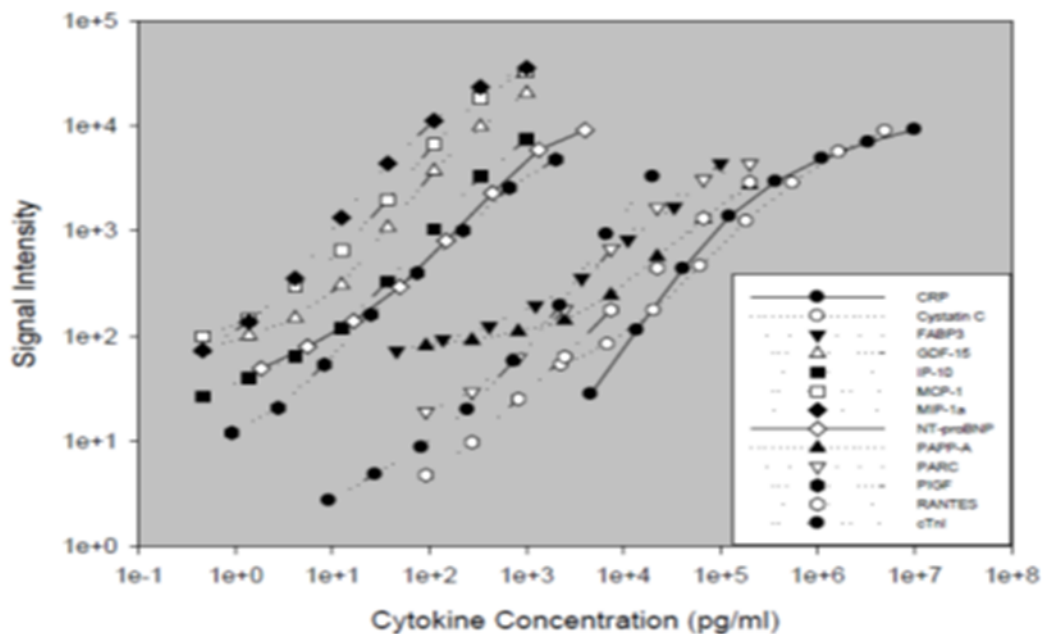
- Glass Chip with antibody arrays
- Sample Diluent
- Lyophilized protein standard mix
- Detection antibody cocktail
- Streptavidin-Fluorescent dye
- Wash buffer
- Manual
- Accessories include: 16-well incubation chamber with gasket, protective cover, snap-on sides, adhesive film

Multiplex Protein Detection with Quantibody® Arrays



Like a traditional sandwich-based ELISA, Quantibody uses a matched pair of antibodies for target protein detection. A panel of capture antibodies is printed in multiple identical arrays on a standard slide. After a blocking step, samples are incubated with the arrays. Nonspecific proteins are then washed off, and the arrays are incubated with a cocktail of biotinylated detection antibodies, followed by a streptavidin-conjugated fluorophore. Signals are then visualized using a fluorescence laser scanner.

The array-specific protein standards quantifies target protein concentrations, whose concentrations have been predetermined, and are provided to generate an 8-point standard curve of each target protein. By comparing signals from unknown samples to the standard curve, the unknown marker concentration in the samples will be determined. For a list of laser scanner specifications, our website www.xcellcure.com. XCellCure provides sample collection, scanning and data analysis services.



Benefit of Microarray Technique for Research Applications

- High-throughput profiling of biomarker expression
- Validation of semi-quantitative antibody array results
- Identifying potential molecular targets for drug development
- Identifying the molecular mechanisms of drug action
- Identifying crucial factors involved in disease processes
- Discovering biomarkers for disease management
- Discovering expression patterns for molecular classification of diseases

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Speak to a Technical Expert

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