

<b>Protein Services</b>	
<b>Service Title</b>	Protein Array Custom
<b>Workflow Code</b>	PRO-REC
<b>Short Service Description</b>	Custom protein microarrays from crude or purified protein (native or recombinant) to high quality data
<b>Base Price (Price per unit)</b>	Price on enquiry
<b>Turn Around Time</b>	1 month
<b>Detailed Description and background</b>	
<p>Microarrays represent miniaturized solid-phase affinity binding assays employing short peptides, whole proteins (recombinant or natural), antibodies, cell lysates or whole cells printed onto suitable microarray substrates such as coated glass microscopy slides, membranes or plastic devices. Tens, hundreds or thousands of proteins can be arrayed onto a single slide to create discrete micro-reaction sites (features) and to perform multiple assays in parallel using small reaction volumes.</p> <p>After applying suitable labels (e.g. fluorescence) to samples of interest (such as antibodies, proteins or serum) in a direct or indirect (when using secondary antibodies) fashion and incubation of the samples on compatible protein microarrays, binding events at individual features can be determined by measuring the amount of fluorescence label retained on each spot.</p> <p>Typical protein microarray applications include</p> <ul style="list-style-type: none"> <li>antibody-profiling on cell lysate arrays, protein and peptide arrays;</li> <li>protein expression profiling on low-, moderate- or high-density antibody arrays;</li> <li>biomarker validation in reverse phase cell lysate arrays;</li> <li>drug selectivity profiling and functional characterization of polymorphic protein variants (Pharmacoproteomics).</li> </ul> <p>A range of commercial protein microarrays are available in validated quality-controlled workflows and custom arrays can be manufactured according to individual specifications.</p> <p>Applications:</p> <ul style="list-style-type: none"> <li>high throughput function-based profiling of protein-protein, protein-DNA and protein-small molecule interactions;</li> <li>functional profiling of SNP variants and mutants, abundance-based antibody profiling, glycol-profiling of natural &amp; recombinant proteins</li> </ul>	
<b>Service Details</b>	
Custom protein microarray services provided by CPGR	
<ul style="list-style-type: none"> <li>• Extract arrays: Printing of crude or partially purified biological extracts for analysis of biological activity (e.g. antibody binding to immunogenic proteins);</li> <li>• Protein array printing: Custom printing of a variety of protein array formats on a standard high-throughput QArray2 (Genetix) contact printer</li> <li>• Microarray hybridization : Standard protein hybridizations done in an automated processing and incubation station (Tecan HS 4800) in single, dual or quad format</li> <li>• Scanning : All scanning done in 4u microarray reader compatible with most existing microarray designs and formats as well as with arrays printed in 96 MTP formats</li> <li>• Compatibility : All Cy3 or Cy5 labelled analytes and detection antibodies</li> <li>• Main applications: Validation of data Multiplexing of traditional assays e.g. ELISAs</li> </ul>	
<b>Service Deliverable</b>	
Microarray data raw and/or analyzed	

<b>Sample/Info Submission Info</b>	
Samples are accepted in batches up to and including 350 samples. Complete a sample submission form and ship on dry ice. Import permits to be organized.	
<b>Pricing Details</b>	Price on request
<b>Key Words</b>	Protein microarray, assay development, automated hybridization
<b>Sample Shipping Address</b>	Institute of Infectious Disease and Molecular Medicine, UCT, Faculty of Health Sciences, Wernher and Beit Building, Level 2, Lab S2.09, Anzio Road, Observatory, Cape Town 7925, South Africa
<b>Related services</b>	Protein Expression, sample Preparation, Western Blot Analysis, Bioinformatics

