

Biomarker discovery	
Service Title	Cytokine profiling
Workflow Code	service
Short Service Description	Evaluation and quantification of biomarkers in human, rat, mouse fluids
Base Price (Price per unit)	Price on enquiry
Turn Around Time	2 working days
Detailed Description and background	
<p>The CPGR has expertise in quantifying cytokines, chemokines and growth factors in serum, plasma and tissue culture strains. These assays are multiplex immunoassays built on magnetic beads for the simultaneous quantitation of multiple protein biomarkers. The selected proteins may be assayed according to inventoried premixed panels or customized panels or even as single-plex assay sets.</p>	
Service Details	
<p>Inventoried Singleplex and Multiplex kits are purchased from various suppliers. Each kit allows for the evaluation of 38 samples (in duplicate) on a 96-well plate, including standard curves and controls. Customized assays can be developed to study targeted proteins as a validation tool for protein microarrays. The basic protocol involves a Preparation step whereby the Bio-Plex system goes through a warm-up and calibration step. All included standards are reconstituted and diluted according to prescribed volumes. The beads, standards and samples are added to the plate with various vortex and filtration steps included. Detection antibodies are then vortexed and added followed by an hour incubation step. The Streptavidin-PE solution is then added followed by another incubation step for 30 minutes. The assays are evaluated and analyzed on the Bioplex 200 instrument together with the BIO-RAD propriety Bioplex Manager software. The software's productivity-enhancing features encompass protocol setup, data acquisition, instrument operation, comprehensive data analysis and FDA CFR 21 Part 11 compliance with Security Edition</p>	
Service Deliverable	
<p>Report includes the QC quality gate results, the raw data and an analysis report. Bioinformatic analysis and interpretation of data is optional.</p>	
Sample/Info Submission Info	
<p>Up to 38 samples may be run per 96-well multiplex experiment, including standard curves and controls. 150uL of plasma or serum is required per sample for a duplicated assay. Due to the required dilution of tissue culture supernatant, only 100uL is required per sample for a duplicated assay.</p>	
Pricing Details	Price on request
Key Words	Bioplex, Luminex, Protein profiling, Cytokine profiling, protein quantification, microarray validation, plasma, sera, tissue culture supernatant, biomarker discovery
Sample Shipping Address	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
Related services	Bioinformatics. Sample Preparation. Microarray. Biomarker profiling

