

Gene Expression	
Service Title	miRNA
Workflow Code	Affy_Mi
Short Service Description	Provides effective methodology to explore the regulatory mechanisms mediated by miRNAs and their importance in cancer and other diseases.
Base Price (Price per unit)	Price on enquiry
Turn Around Time	3 days
Detailed Description and background	
<p>Low molecular weight molecules have shown to be involved in a number of biological events including mRNA degradation, transcriptional gene silencing and translational repression. A specific assay is used which enables the labelling of any total RNA and low molecular RNA. An ELOSA (enzyme linked oligosorbent Assay) QC step is carried out to confirm that the biotin labelling process has been successful. Positive and negative controls are included to monitor assay performance. These arrays also include quality control probes to assess successful hybridisation to the arrays.</p>	
Service Details	
<p>The sample number for analysis is dependent on the nature of the experimental design. It is advisable to have at least 3 replicates however the actual optimum number depends on the samples to be investigated and variance inherent in the experimental system. RNA samples must be of good quality with 260/280 ratios of 1.8-2.1 and 260/230 ratios > 1.8 and non-degraded. The quality of all samples are routinely checked prior to analysis. Sample concentration should be at least 50ng/ul (at least 100ng is required for the assay). Following the QC steps, the samples undergo Poly (A) tailing followed by a ligation step to generate biotin-labelled RNA. An ELOSA QC step is performed prior to sample hybridisation to determine successful labelling. Following hybridization, the arrays are washed and stained using the GeneChip Fluidics Station 450 and scanned using the GeneChip® Scanner 3000 7G. The initial analysis is carried out to determine the quality of the data using Affymetrix miRNA QC tool. Bioinformatics support is available if required.</p>	
Service Deliverable	
<p>Following initial analyses using AffymetrixmiRNA QC tool, the raw data files are sent to the client with a data QC report. If required, bioinformatics support can be provided.</p>	
Sample/Info Submission Info	
<p>1 sample per array. At least 1ug of good quality total RNA(in RNase free water) required at a minimum concentration of 200ng/ul, 260/280 ratios 1.8-2.1 and 260/230 ratios >1.80. Samples should be submitted on dry ice with a sample submission form (this will be sent to the client in advance) providing all the sample details required.</p>	
Pricing Details	Price on request
Key Words	cost effective, highly reproducible,
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

