

Gene Expression Profiling – Microarray Analysis

General equipment

- Pipettes
- ep Dualfilter T.I.P.S. (PCR clean, sterile and pyrogen-free)
- Tubes (PCR clean)
- Deepwell Plates
- Microplates

MicroDissector
Filtertips (MDS)
MicroChisel
TransferTips® (MDS)
TransferMan® NK 2
CellTram® vario

Cell Technology

Blood/Tissue/
Cell culture

RNA isolation
using organic
solvents
(e.g. phenol)

Thermomixer
ThermoStat plus
Centrifuge (refrigerated)

RNA clean-up
using kits for
nucleic acid
purification

epMotion® 5075
Centrifuge (refrigerated)
Thermomixer

Isolated RNA

Photometric RNA
quantification

BioPhotometer plus
BioPhotometer Data Transfer
Software, Secondary UV-
VIS-Filter, UVette®

RNA analysis by
gel electrophoresis

Thermomixer
MixMate®
Centrifuge (refrigerated)

RNA analysis by
Northern Blot
hybridization

Centrifuge (refrigerated)
ThermoStat plus
Thermomixer

Optional: RNA
amplification

Centrifuge (refrigerated)
Thermomixer
ThermoStat plus

cDNA synthesis

Mastercycler®
Mastercycler® pro
PCR Tubes (0.2 ml and 0.5 ml)
ThermoStat plus
Thermomixer
PCR-Cooler
IsoTherm-System
PCR Rack

Northern Blot
hybridization

Centrifuge (MiniSpin®)
ThermoStat plus
Thermomixer

real-time PCR
(see epSystem Guide 02)

Mastercycler® ep *realplex*
epMotion® 5070/5075
twin.tec *real-time* PCR Plate
Heat Sealing Film
Heat Sealer
real-time PCR Tube Strips
Masterclear Cap Strips
epT.I.P.S. LoRetention

Centrifuge 5804/5810/5430
Swing bucket rotor
CombiSlide® adapter

Hybridization

Thermomixer comfort with
Thermoblock Slides DC
DualChip Microarray Kits

Fluorescence
staining

Silverquant®
staining

Silverquant® detection kit
Silverquant® adapter
Thermomixer comfort
Centrifuge 5804/5810/5430
Swing bucket rotor
CombiSlide® adapter

Scanning and
Data Analysis

Scanning and
Data Analysis

Fluorescence scanner
Quantification-Software
DualChip® Evaluation Software

Silverquant® scanner
Silverquant® software

Data Mining