Preparation of DNA Microarray Printing Solution

The DNA microarray printing solution consists of PCR products at a final concentration of greater than 100 ng/μl (referably greater than 200 ng/μl). For quality control, all PCR reactions are evaluated on gels for size and number of bands. The concentration of the PCR products is determined using the PicoGreen Assay.

PCR Amplification of DNA

◎*Materials and Reagents*

96-Well polypropylene, V-bottom Microplate

5 mM dNTPs

25 mM $MgCl_2$

Taq DNA Polymerase

Pfu DNA Polymerase

Appropriate DNA Primers (e.g. universal primers if clones from a library are used as templates)

10X PCR buffer (300 mM Tricine pH 8.4, 500 mM KCl)

TE pH 7.5 (filtered)

◎*Cycles Temp / time*

94℃ 2min

35 cycles 94℃ 30sec; 65℃ 30sec; 72 ℃ 2min

1 cycle 72 ℃ 10min

1 cycle 4 ℃ hold to end

Note: PCR condition is optimized for GeneAmp PCR System 9700, PE Applied Biosystem

Annealing temp and extension time should be optimized according to the nature of primers and the DNA sequence to be amplified.