

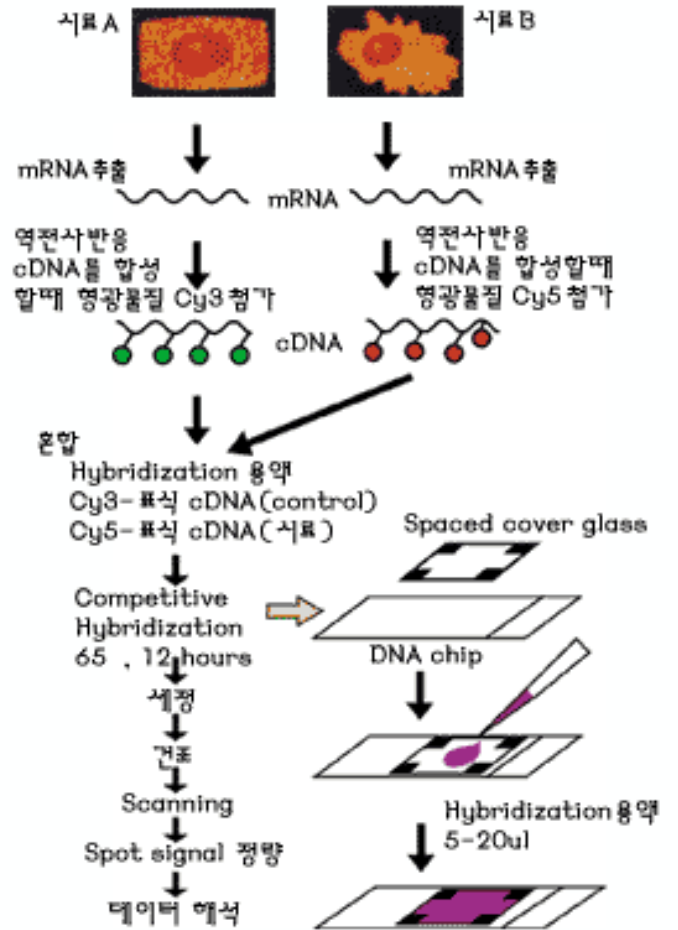
1

DNA chip

Takashi Okado
DNA Function Analysis Center
Takara Shuzo Co., Ltd

1. Competitive hybridization , cDNA
 DNA chip Cy3™ Cy5™가 dUTP
 cDNA
 DNA chip slide glass
 DNA
 RNA
 cDNA hybridization scanner DNA chip 가
 Scanner DNA chip spot
 hybridization cDNA signal
 spot Cy3™ Cy5™ 가
 hybridization mRNA .
 screening tool . DNA chip Competitive hybridization RNA
 hybridization , DNA가 A B
 membrane glass , spot Cy3™,
 (22 mm x 50 mm DNA chip software (mRNA
 software
) scatter plot, , Cy3™
 Cy5™ signal 가
 parameter (normalization)
 DNA chip DNA(가 DNA) signal
 mRNA software
 cDNA hybridization mRNA
 DNA chip
 hybridization
 (10~100 μℓ)
 , DNA chip DNA

(pL) , DNA 가
 DNA chip DNA chip
 control RNA
 RNA 2
 Control
 RNA,
 DNA chip
 competitive hybridization mRNA



1 DNA chip Hybridization

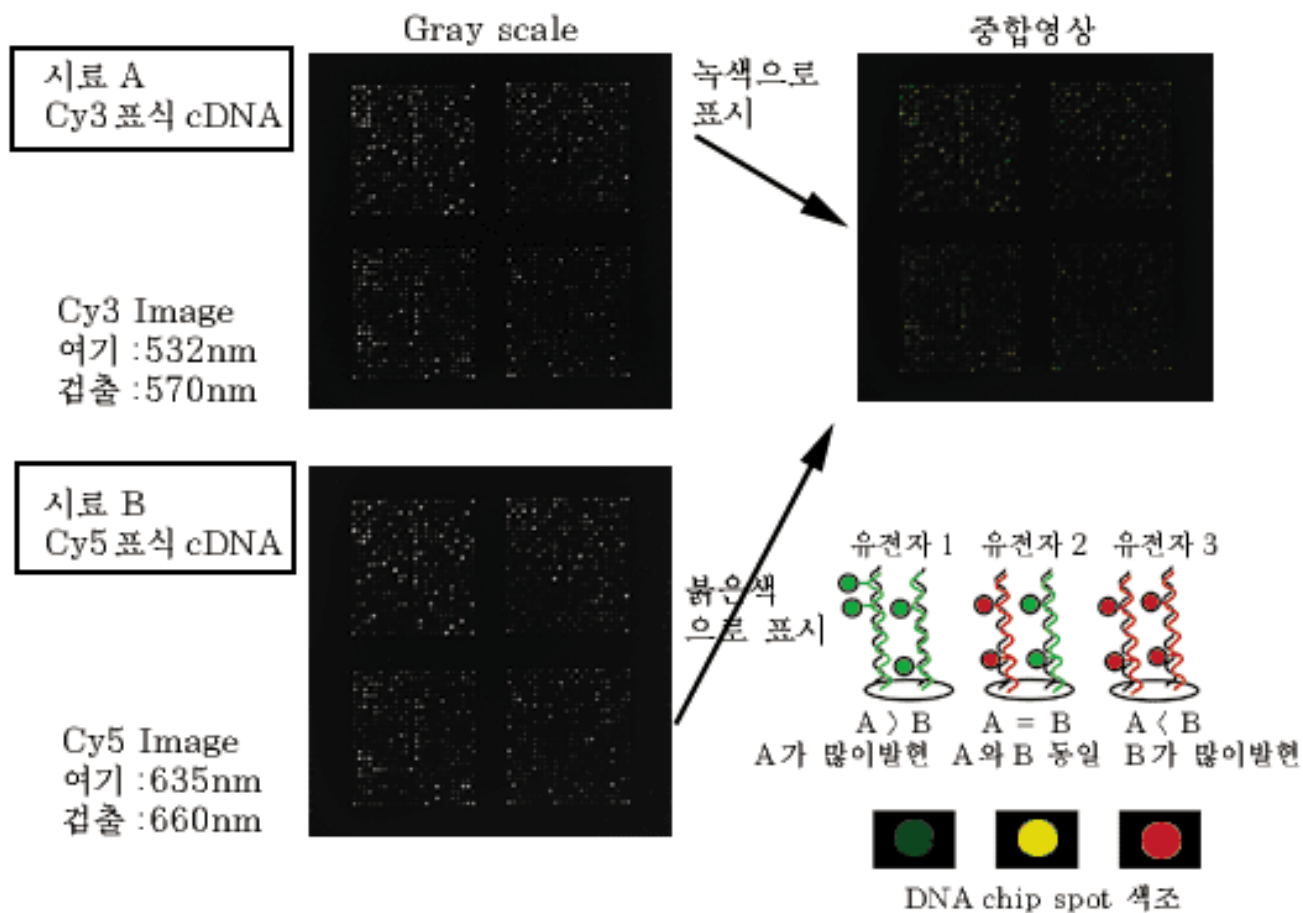
1 2 3 ()

다카라코리아바이오메디칼주식회사

1

DNA chip

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2 DNA chip

Cy3™ Cy5™ signal 3가 hybridization
 normalization , Northern Blot DNA chip
 가 , control hybridization
 housekeeping gene(actin, G6PD)
 , DNA chip
 signal (global normalization) chip
 DNA spot , RNA spot
 RNA RNA
 가 signal signal
 DNA signal signal
 normalization , DNA chip
 , 가 . 가

【 】

- 1) DNA chip DNA spot (
- 4).
- 2) TaKaRa Spaced Cover Glass spacer
DNA가 array
- 3) cDNA probe (Cy3™
, Cy5™ hybridization
competitor ,)

Hybridization solution:
 6 × SSC
 0.2% SDS
 5 × Denhardt's solution
 1 mg/mL denatured salmon sperm
 DNA

- 4) (0.22 μm)
cDNA probe 95 2 가
- 5) , 15,000 rpm, 25
10 (SDS가
water bath)
- 6) TaKaRa
Spaced Cover Glass DNA chip
pipet
- 7) DNA chip
()
DNA chip hybridization
chamber
- 8) 65 12~16
()

3. DNA chip hybridization

DNA chip cDNA
 probe
 probe kit가 ,
 kit 가 ,
 total RNA) labeling , mRNA(
 hybridization , DNA chip
 Cy3™, Cy5™ 가
 DNA가 spot
 , 가
 가
 DNA chip hybridization
 membrane
 TaKaRa
 Spaced Cover Glass(3) cover glass
 20 μm spacer가 ,
 DNA chip

9) 2 × SSC/0.2% SDS 2
55 , 2 × SSC/0.2% SDS
1 65 prewarm .

1 2 3 ()

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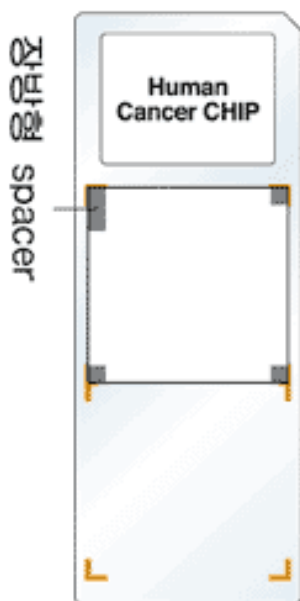
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TaKaRa Spaced Cover Glass S

TaKaRa Code TX702

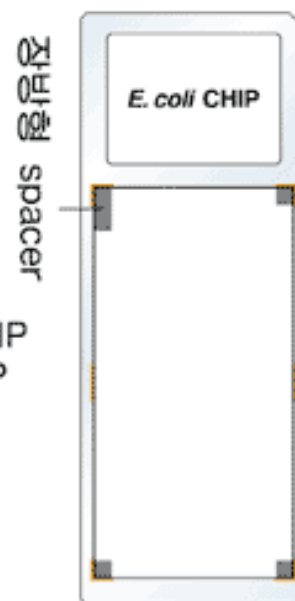


size : 22 × 22 mm

적용 IntelliGene® :
Human Cancer CHIP
Human Apoptosis CHIP
Human Cytokine CHIP
Mouse CHIP Set I
etc.

TaKaRa Spaced Cover Glass L

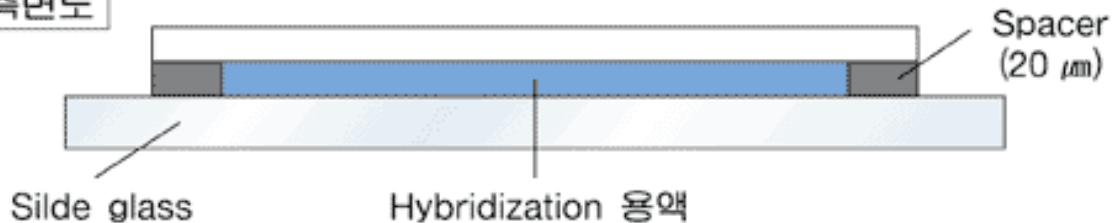
TaKaRa Code TX703



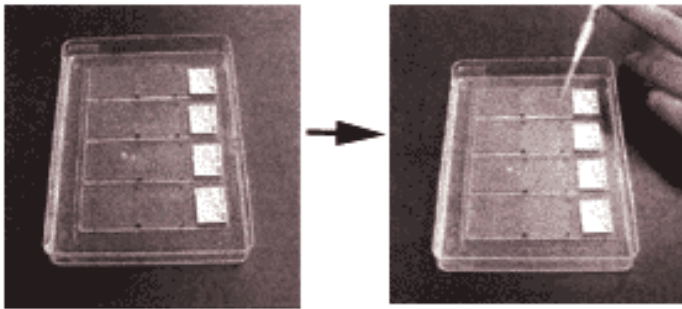
size : 43 × 22 mm

적용 IntelliGene® :
E. coli CHIP
Cyano CHIP

측면도



3 TaKaRa Spaced Cover Glass



4.

DNA chip 가 가
 , DNA chip PCR
 DNA arrayer spot
 , DNA chip
 DNA chip hybridization

DNA chip
 DNA chip screening tool

S/N
 scanning , DNA chip ,
 polymerase 가
 , 가
 가 DNA chip
 DNA chip spot
 , DNA chip
 profile
 DNA

chip

DNA Probe Cover
 chip Glass DNA chip
 TaKaRa
 Spaced Cover Glass

4 Hybridization

10) 2 x SSC/0.2% SDS DNA chip
 DNA가 spot
 cover glass

11) DNA chip 55 , 2 x SSC/0.2% SDS
 5 washing

12) 55 , 2 x SSC/0.2% SDS 5
 washing

13) 65 , 2 x SSC/0.2% SDS 5
 washing

14) , 0.05 x SSC

15) 1,000 rpm, 2
 N2가 (air duster)

DNA chip (

, scanner
 background

DNA chip (Affymetrix® 428™
 Array Scanner, TaKaRa Code GM210)

spot signal

microarray

software (ImaGene™, TaKaRa Code
 BD001) spot

signal

다카라코리아바이오메디칼주식회사