

Product Information

Dengue 1.4

LCD-Array Kit



For Research Use Only [RUO]

cDNA based identification of Dengue Virus
Type 1, 2, 3 and 4



Simple

PCR based macro array assay on polymer supports.



Robust

Non fluorescent detection chemistry.



Fast

90 minutes RT-PCR, 45 minutes array protocol.



Cost efficient

Minimal lab instrumentation required.



Reliable

Automatic, software assisted data read-out.

Technology for your daily routine.

Assay Principle

Biotinylated PCR products are generated from sample material containing extracted viral RNA in a „One-Step RT-PCR“. The labeled amplicons are hybridized to Dengue Virus specific capture probes immobilized on the LCD-Chip surface. Following a short wash routine, comprising high stringency, visualization of bound amplicons is mediated by an enzyme-substrate cascade. Each LCD-Chip contains eight identical micro arrays separated in small reaction chambers. Each array can be addressed individually, allowing the parallel analysis of eight samples on one chip.

Target Region & Specificity

The provided primer recognize highly conserved motifs in the “non-coding” 3' end of the viral RNA. The short amplicon length of ~150 bp guarantees excellent sensitivity. 18 specific capture probes (4 specific probes for each Dengue Virus Type and 2 universal probes) ensure that rare or new genotypes can also be detected. Thereby the risk of false negatives due to the high mutation rates in the genomes of RNA viruses is limited. Since not all isolates will hybridize to all 4 type specific probes, in some cases different isolates of the same Dengue Virus Type can be distinguished based on their hybridization pattern.

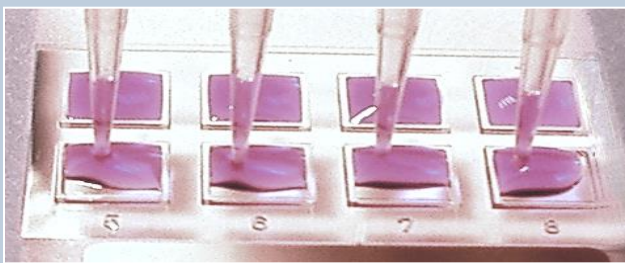
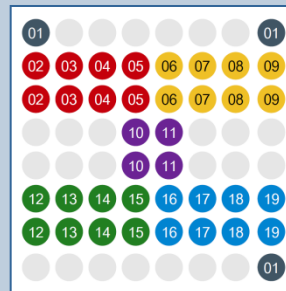
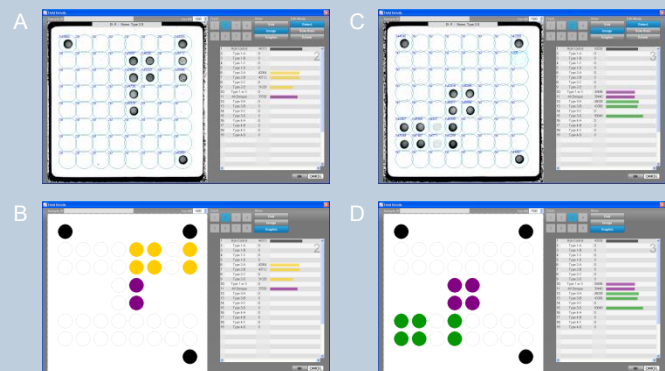


Fig. 1: Parallel analysis of eight samples on one LCD-Chip. The array field spacing is compatible with standard multi pipettes.

Array Pattern



1	Hybridization Control
2	Dengue Type 1 a
3	Dengue Type 1 b
4	Dengue Type 1 c
5	Dengue Type 1 d
6	Dengue Type 2 a
7	Dengue Type 2 b
8	Dengue Type 2 c
9	Dengue Type 2 d
10	Dengue Type 1 or 3
11	Universal Dengue Virus
12	Dengue Type 3 a
13	Dengue Type 3 b
14	Dengue Type 3 c
15	Dengue Type 3 d
16	Dengue Type 4 a
17	Dengue Type 4 b
18	Dengue Type 4 c
19	Dengue Type 4 d

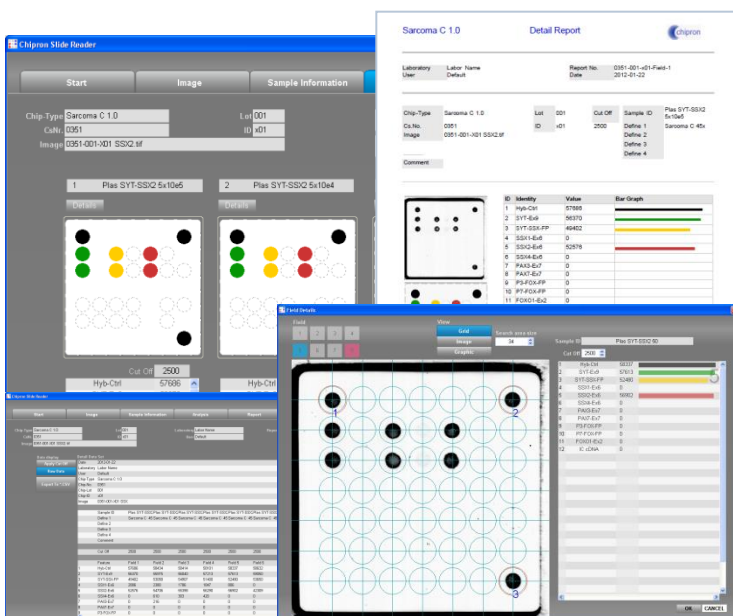


A+B) Detection of Dengue Virus Type 2
C+D) Detection of Dengue Virus Type 3

Software

SlideReader V12

- Fully automated image analysis
- Data reports in PDF format
- Win XP & WIN7 compatible



Instruments

CHIP-Scanner PF7250u



- Transmission light scanner for LCD-Arrays,
- 10 µm resolution

CHIP Spin FVL2400



- Bench Top mini centrifuge
- 2400 rpm, constant
- Adaptor for LCD-Arrays

Order Information	Cat. N°.
Dengue 1.5 LCD-Array Kit, 32 Tests	V-200-04
Dengue 1.5 LCD-Array Kit, 96 Tests	V-200-12
CHIP-Scanner PF7250u	HS-500-01
CHIP-Spin FVL2400	HS-300-01
SlideReader Software	HS-200-01