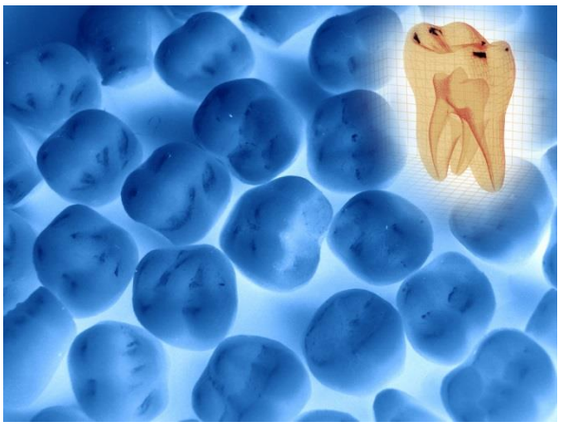
Product Information

BAC-Dent 2.4

LCD-Array Kit

CE IVD



Parallel identification of 11 bacteria associated with periodontits.

Simple

PCR based macro array assay on polymer supports.

Robust

Non fluorescent detection chemistry.

Fast

90 minutes PCR, 45 minutes array protocol.

Cost efficient

Minimal lab instrumentation required.

Reliable

Automatic, software assisted data read-out.

Technology for your daily routine.

CHIPRON GmbH | Eresburgstr. 22-23 | D-12103 BERLIN | T: +49 30 787994 70 | F: +49 30 78794 99 | info@chipron.com

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Assay Principle

Biotinylated PCR products are generated from sample material containing extracted bacterial DNA from subgingival plaques with the provided primer mix (Triplex-PCR). The labeled amplicons are hybridized to species 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 & Sensitivity

The provided primer mixes recognize highly conserved motifs in the 16S rRNA gene of the bacterial genomes. The short amplicon lengths of ~80, 300 and 350 bp guarantee excellent sensitivity. Specific capture probes immobilized as duplicates permit the simultaneous detection of the 11 most important bacterial species associated with human periodontitis. Following PCR amplification the complete procedure takes 45 minutes. Data analysis can be achieved using the SlideReader software or by simple examination with the naked eye.

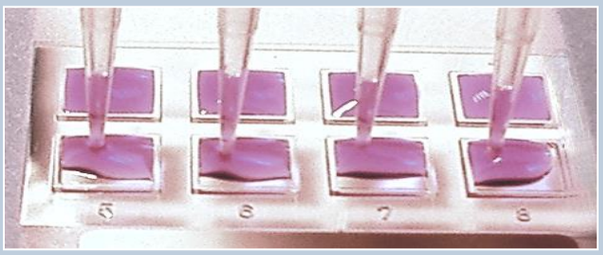


Fig.1:
Parallel analysis of eight samples on one LCD-Chip. The array field spacing is compatible with standard multi pipettes.

Array Pattern

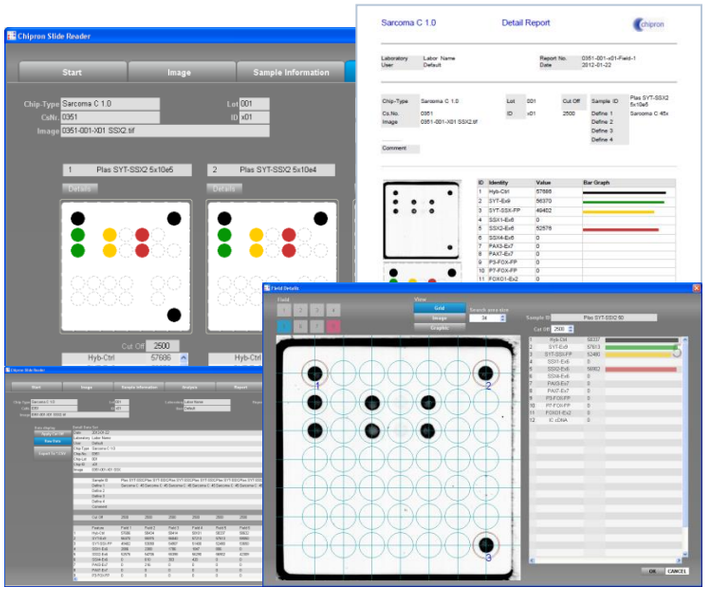
1	Hybridization Control
2	*A. actinomycetemcomitans*
3	*Prevotella intermedia*
4	*Porphyromonas gingivalis*
5	*Treponema denticola*
6	*Tannerella forsythia*
7	*Campylobacter rectus*
8	*Eikenella corrodens*
9	*Capnocytophaga gingivalis*
10	*Peptostreptococcus micros*
11	*Eubacterium nodatum*
12	*Fusobacterium sp.*
13	PCR Control

Fig.2 :
Results of two DNA preparations from human subgingival plaques, analysed with the SlideReader software
A) Grey scale images of array fields, superposed with analysis grids
B) Assignment of color codes for bacterial complexes according to Socransky et al., J. Clin. Periodontol. 25 (1998)

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. No.
BAC-Dent 2.4 LCD-Array Kit, 32 Tests	B-400-04
BAC-Dent 2.4 LCD-Array Kit, 96 Tests	B-400-12
CHIP-Scanner PF7250u	HS-500-01
CHIP-Spin FVL2400	HS-300-01
SlideReader Software	HS-200-01

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