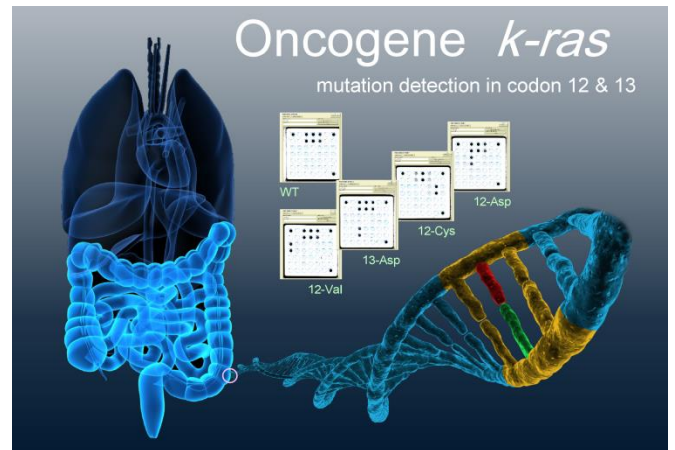


Product Information

kras 1.4

LCD-Array Kit

For Research Use Only [RUO]



Parallel detection of 9 point mutations in codon 12 & 13 of the *kras* oncogene



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.

Assay Principle

Using extracts of human DNA from FFPE tissue sections as template, biotinylated amplicons (170 bp) are generated in a single PCR. This amplification takes place in the presence of a 'Wild-type' Suppressor Compound (WSC), which selectively suppresses the amplification of wild type sequences, leading to a more than 10 fold better assay sensitivity compared to standard 'Sanger' sequencing. The labeled amplicons are hybridized to sequence 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. The 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. Following PCR amplification the complete procedure takes 45 minutes.

Specificity & Sensitivity

The assay detects 9 somatic mutations in codons 12 and 13 of the kras oncogene, frequently found in human cancers. Using sufficient DNA amounts as starting material, 1% mutant sequences in a 'wild type' background can be detected.

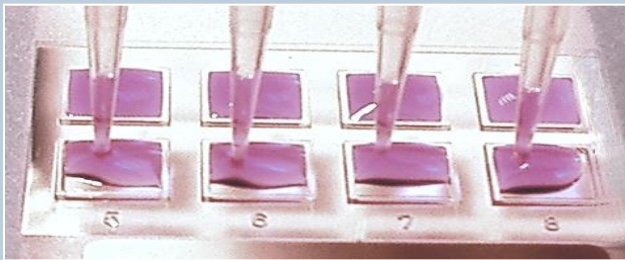
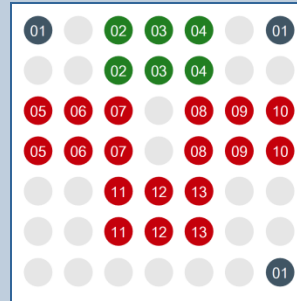


Fig.1: Parallel analysis of eight samples on one LCD-Chip. The array field spacing is compatible with standard multi pipettes.

Array Pattern



01	Hybridization Control	
02	Wild Type 5'	[GGTGGC]
03	Wild Type Center	[GGTGGC]
04	Wild Type 3'	[GGTGGC]
05	Mutation G12V	[GTT]
06	Mutation G12A	[GCT]
07	Mutation G12D	[GAT]
08	Mutation G12S	[AGT]
09	Mutation G12C	[TGT]
10	Mutation G12R	[CGT]
11	Mutation G13D	[GAC]
12	Mutation G13R	[CGC]
13	Mutation G13C	[TGC]

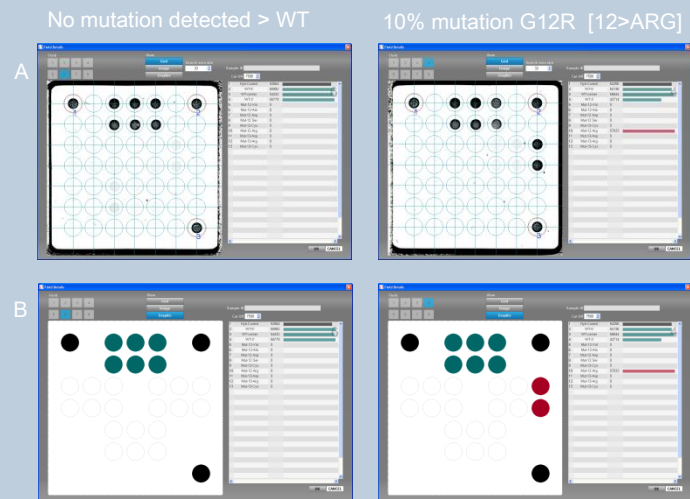
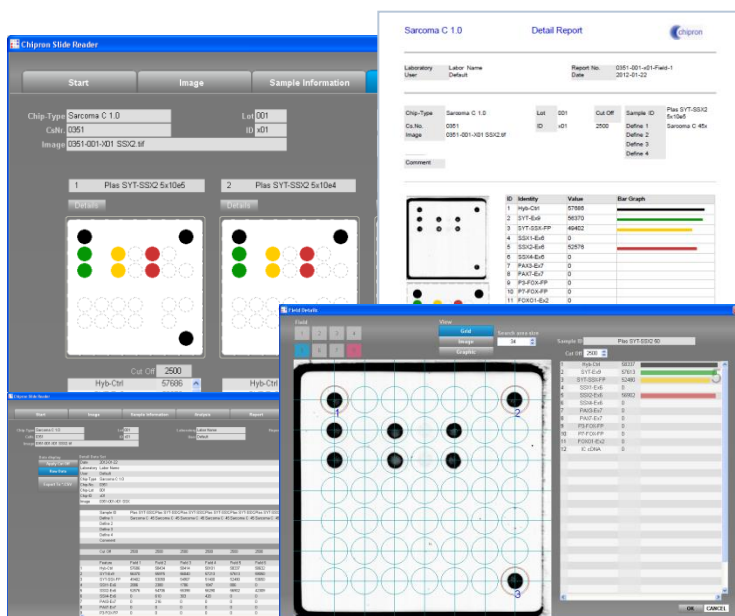


Fig.2 : Results of two DNA extracts from FFPE tissue micro dissections, analysed with the SlideReader software
 A) Grey scale images of array fields, superposed with analysis grids
 B) Assignment of color codes to detected signals [Green: wild type , Red: mutation]

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°.
kras 1.4 LCD-Array Kit, 32 Tests	SN-300-04
kras 1.4 LCD-Array Kit, 96 Tests	SN-300-12
CHIP-Scanner PF7250u	HS-500-01
CHIP-Spin FVL2400	HS-300-01
SlideReader Software	HS-200-01