



HUMAN HEALTH

ENVIRONMENTAL HEALTH

# OPTIMIZED ANTI-EGFR THERAPY TESTING

**RAScan™ Kits for KRAS  
and NRAS mutation detection**

Brochure not for distribution in the USA.

  
**PerkinElmer®**  
*For the Better*

# OPTIMIZED KRAS AND NRAS MUTATION DETECTION

## Detection of *RAS* Mutations and their importance in metastatic Colorectal Cancer (mCRC)

**Colorectal Cancer (CRC)** is the 3<sup>rd</sup> most common diagnosed cancer with an estimated ~1,000,000 new cases per year worldwide. 50%–60% of patients diagnosed with colorectal cancer will develop metastases during the course of their disease.

One common therapy choice for metastatic CRC (mCRC) patients is the use of EGFR inhibitors such as cetuximab and panitumumab. Efficiency of treatment with both these biologic agents has, up until now, been attributed to the mutation status of *KRAS* exon 2. Recent studies however have identified additional, previously unreported mutations in the *KRAS* and *NRAS* genes (collectively referred to as “*RAS* mutations”) that are highly relevant when considering administration of anti-EGFR therapies. These additional mutations were found to increase the mutation detection from 40% to 57%, thus identifying an additional 17% of patients potentially not responding to panitumumab therapy.

Table 1: Amgen Studies 203 and 509 (n=~1090) identifying an additional 17% of patients with clinically relevant *RAS* mutations aside of *KRAS* Exon 2. (Douillard et al. 2013)\*

<i>RAS</i> Target Exons	Codons	Detection Rate <i>KRAS</i>	Detection Rate <i>RAScan</i> <sup>TM</sup>
<i>KRAS</i> Exon 2	12 & 13	40%	40%
<i>KRAS</i> Exon 3	59 & 61		4%
<i>KRAS</i> Exon 4	117 & 146		6%
<i>NRAS</i> Exon 2	12 & 13		3%
<i>NRAS</i> Exon 3	59 & 61		4%
<i>NRAS</i> Exon 4	117 & 146		< 1%
<b>Total</b>		<b>40%</b>	<b>57%</b>

### *RAScan*<sup>TM</sup> Kits to detect all clinically relevant *RAS* mutations

*RAScan*<sup>TM</sup> Kits are intended to detect the full range of clinically relevant *RAS* mutations, and so aid the decision on administration of anti-EGFR therapeutics.

# RAScan™ FOR COST AND TIME EFFICIENT RAS TESTING

Transgenomic's new **RAScan™ Complete Kit** is designed to detect the full range of clinically relevant mutations within one single experiment, thus eliminating the requirements of additional tests.

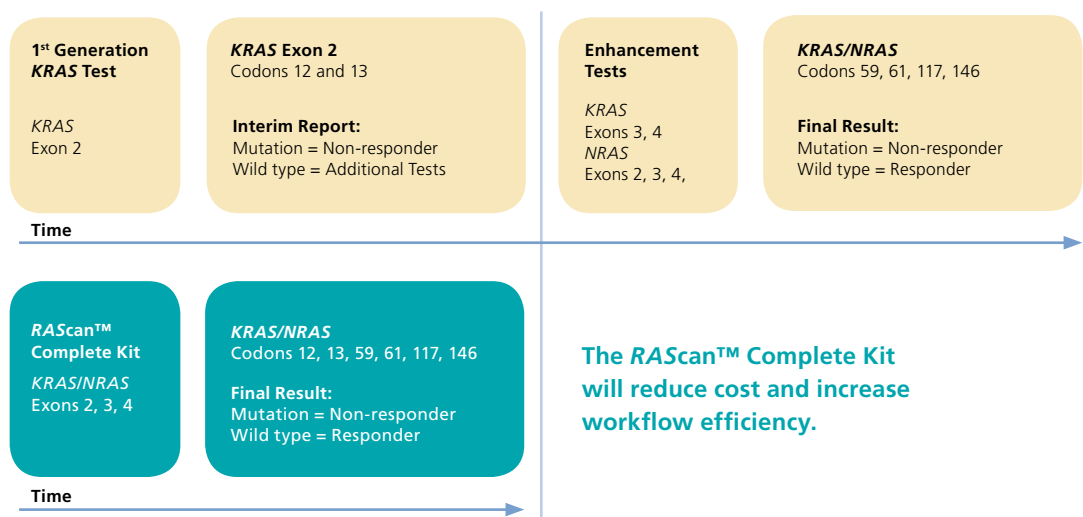


Figure 1: Increased workflow efficiency and reduced turnaround time with use of the RAScan™ Complete Kit

## ASSAY CHARACTERISTICS

- CE-marked assay for IVD use
- Detection of the full range of clinically relevant *KRAS/NRAS* mutations requiring evaluation according to EU product information for Vectibix® (panitumumab)
- Time and cost savings through simultaneous mutation analysis
- Mismatch mutation detection utilizing the proprietary SURVEYOR® Nuclease technology for increased sensitivity
- Mutation detection on various instruments including PerkinElmer's CE-IVD marked Labchip MultiDX

## PRODUCT INFORMATION:

PKI Part Number	PKI Name
3211-0010	RAScan Complete Kit CE IVD

## RELATED PRODUCTS:

PKI Part Number	PKI Name
3208-0010	RAScan KRAS Exon 2 Kit CE IVD
3209-0010	RAScan KRAS Exons 3 and 4 Kit CE IVD
3210-0010	RAScan NRAS Exons 2, 3 and 4 Kit CE IVD
3212-0010	CRC RASseq CE IVD
CLS136531	LabChip MultiDx

*\*Douillard et al., Panitumumab–FOLFOX4 Treatment and RAS Mutations in Colorectal Cancer N Engl J Med 2013;369:1023-34.*

These products are not available in the USA, Canada, China, Japan, Singapore, Argentina, Brazil, Mexico and some other Asian and Latin-America countries. For information on availability of PerkinElmer diagnostic products please contact your local representative.

PerkinElmer, Inc.  
940 Winter Street  
Waltham, MA 02451 USA  
Phone: (800) 762-4000 or  
(+1) 203-925-4602  
www.perkinelmer.com

PerkinElmer, Inc.  
Wallac Oy  
PO Box 10  
20101 Turku, Finland  
Phone: (+358) 22678-111  
Fax: (+358) 22678-35757

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