

fastGEN

A breakthrough system
for a one-step NGS
library preparation

ENG

GTTCAATATTGCGATGTT
CCGATGGTACAGGCACA
GATGCTACAGGCCAGCT

0100001101010110011010
0001001101101011101010

Meet the fastGEN technology

Quick & easy detection of mutations in oncomarkers

Personalised therapy allows patients with various types of cancer to prolong and improve their quality of life. To effectively set up the therapy, it is necessary to distinguish patients who will benefit from treatment from patients whose cancer is naturally resistant to the therapy. The appropriate predictive molecular markers can increase the overall effectiveness and reduce the financial costs of the therapy.

Knowledge about the mutation status of *RAS* genes, *EGFR*, *IDH1*, *IDH2* and *POLE* genes is required to indicate the proper treatment of metastatic carcinomas and to assess the disease prognosis.

BioVendor Group developed user-friendly diagnostic NGS kits with excellent analytical parameters and high-speed processing.

What do experts from practice say about the new NGS kits?



Modern diagnostics have to be fast, reliable, and easy-to-use. An all-in-one solution that reduces workflow from two days to four hours? Fascinating!

Iveta Tóthová, Ph.D.

Product & Scientific Manager

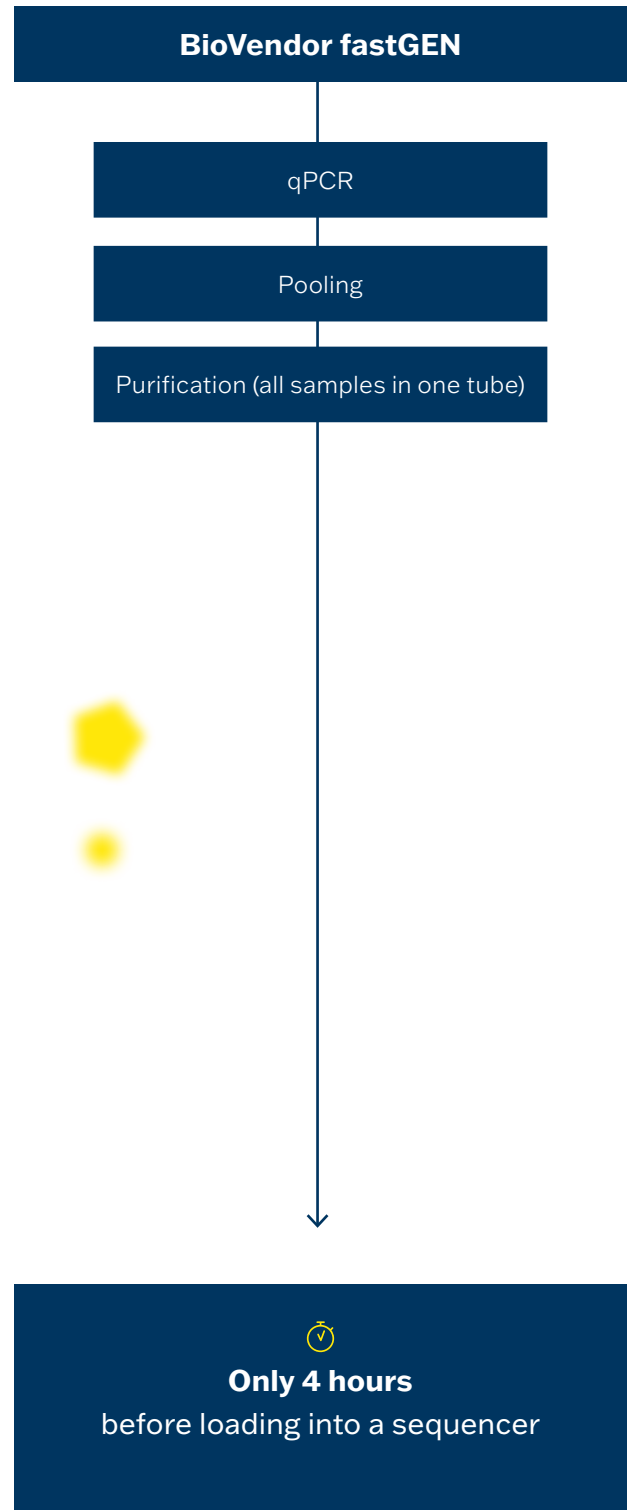
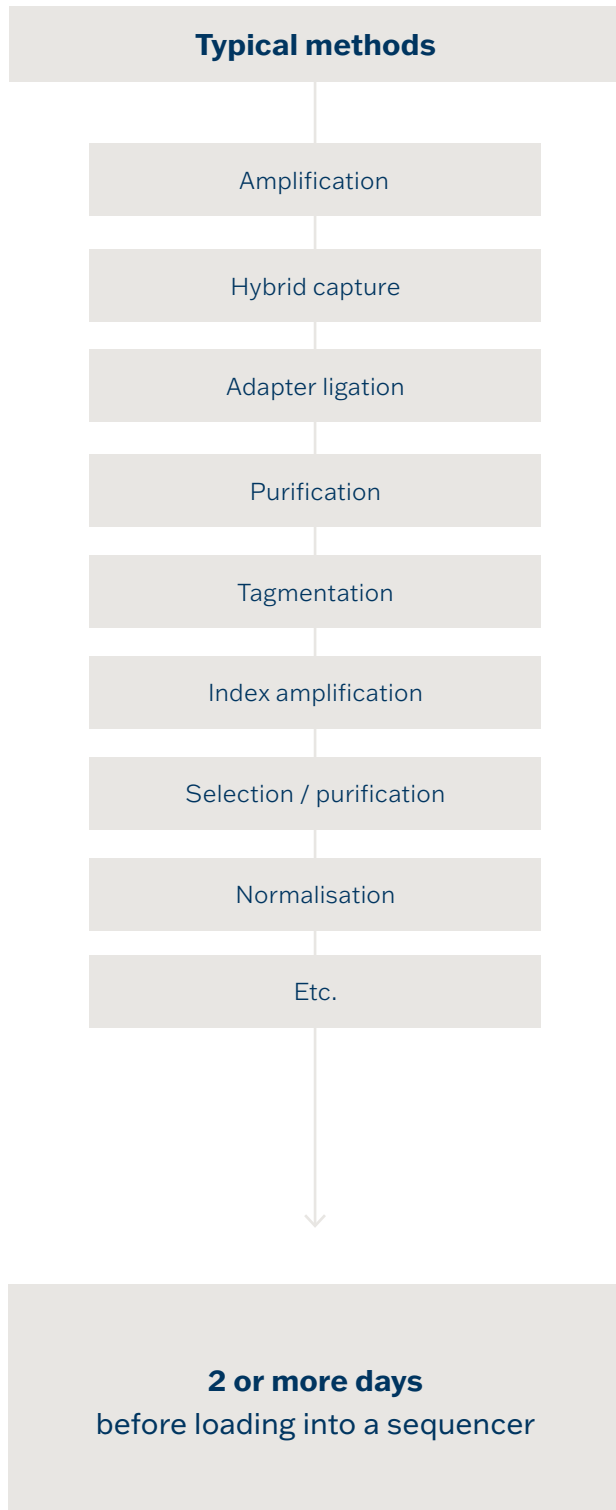


It is a revolutionary solution in speed, specificity, robustness, and user-friendliness. To me, fastGEN technology means a massive leap toward personalised diagnostics and medicine.

Anna Kolouchová, Ph.D.

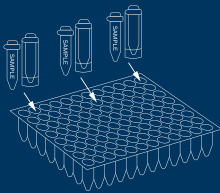
Business Development Manager

It's faster. Way faster!



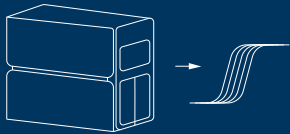
State-of-the-art prototyping workflow

1.



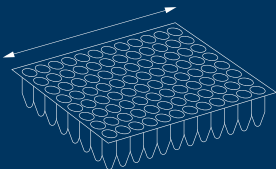
Samples and Master Mixes with different indexes are mixed (10 min).

2.



Reactions are set up using a Real-Time PCR device.

3.



Indexed amplicons are pooled (5 min).

4.



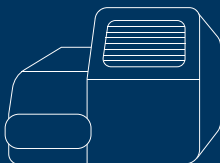
DNA is purified (10 min).

5.



DNA is diluted and denatured (10 min).

6.



DNA is sequenced using an Illumina sequencer.

7.



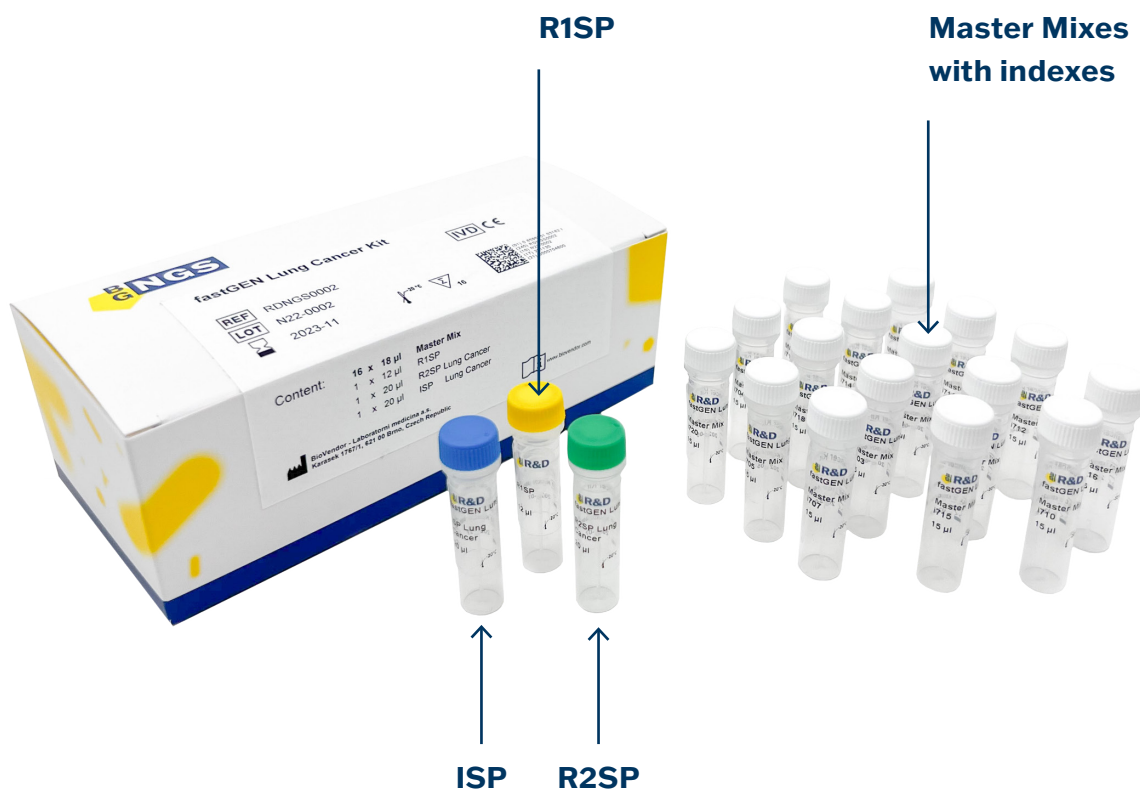
Raw data are analysed with GENOVESA software.

Discover what's inside the solution

We developed NGS kits to analyse *KRAS*, *NRAS*, *BRAF*, *EGFR*, *IDH1*, *IDH2*, and *POLE*. Our fastGEN technology is designed to allow parallel processing of samples for all selected genes.

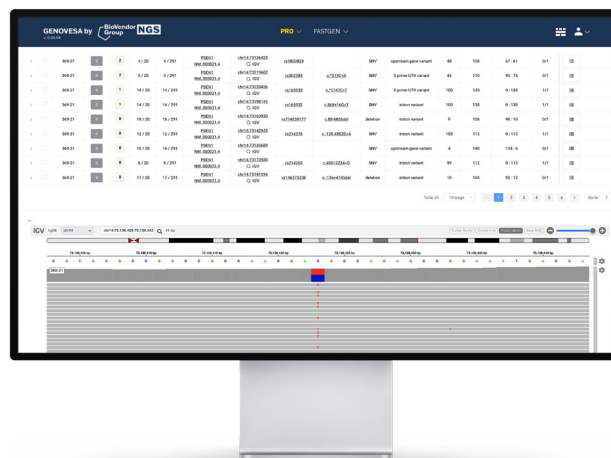
Kit components

The kit contains ready-to-use Master Mixes with 16 sample indexes, read1, read2 seq primers and an index seq primer.



Software

The GENOVESA fastGEN software module can be used to analyse sequencing data. It is an all-in-one solution for the analysis of raw data (FASTQ format files) with technical and application support.



Four reasons why fastGEN is worth your attention

Unique

Simple, ultra-sensitive, specific, and effective technology

Fast

Excellent speed
(<30 min hands-on time)

Reliable

Significantly lower probability of mistakes, uniform coverage for different amplicons and different samples

Robust

Robustness achieved by using short amplicons obtained by a single polymerase chain reaction with special tagged hybrid primers

Type of samples suitable for fastGEN technology



DNA isolated from tumor tissue



DNA isolated from FFPE tissue samples



Circulating tumor DNA isolated from blood

Single technology, multiple opportunities

Kit and data analysis in one package

Kits

Cat. No.	Product	Gene	Detail	Sequencer compatibility	Status
RDNGS0001	fastGEN Solid cancer kit	NRAS KRAS BRAF	for rapid preparation of the sequencing library for genotyping the <i>KRAS</i> , <i>NRAS</i> (codons 12, 13, 59, 60, 61, 117, and 146) and <i>BRAF</i> (codons 600 and 601) genes	Illumina MiSeq	CE IVD**
RDNGS0002	fastGEN Lung cancer kit	EGFR	for rapid preparation of the sequencing library for genotyping the <i>EGFR</i> gene (exons 18, 19, 20, and 21)	Illumina MiSeq	CE IVD**
RDNGS0003	fastGEN Brain cancer kit	IDH1 IDH2	for rapid preparation of the sequencing library for genotyping the <i>IDH1</i> and <i>IDH2</i> genes (codons 132 and 172).	Illumina MiSeq	CE IVD**
RDNGS0010	fastGEN POLE/CTNNB1 kit*	POLE CTNNB1	for rapid preparation of the sequencing library for genotyping the <i>POLE</i> gene (codons 286, 411, 297, 459, 456, 367, 424, 295, 436, 444, and 368) and <i>CTNNB1</i> (codons 22-62, 318-344, 371-395)	All Illumina platforms	RUO
RDNGS0009	fastGEN TP53 kit*	TP53	for rapid preparation of the sequencing library for genotyping the <i>TP53</i> gene (exons 2-11, 2 non-canonical exons between exons 9 and 10, and adjacent introns)	All Illumina platforms	RUO
RDNGS0007	fastGEN PIK3CA kit*	PIK3CA	for rapid preparation of the sequencing library for genotyping the <i>PIK3CA</i> gene (exact codons in exons 2, 3, 5, 7, 8, 10, 14 and 21)	All Illumina platforms	RUO
RDNGS1001	fastGEN Solid cancer kit II*	NRAS KRAS BRAF	for rapid preparation of the sequencing library for genotyping the <i>KRAS</i> , <i>NRAS</i> (codons 12, 13, 59, 60, 61, 117, and 146) and <i>BRAF</i> (codons 600 and 601) gene	All Illumina platforms	RUO

* Does not contain *R1SP*.

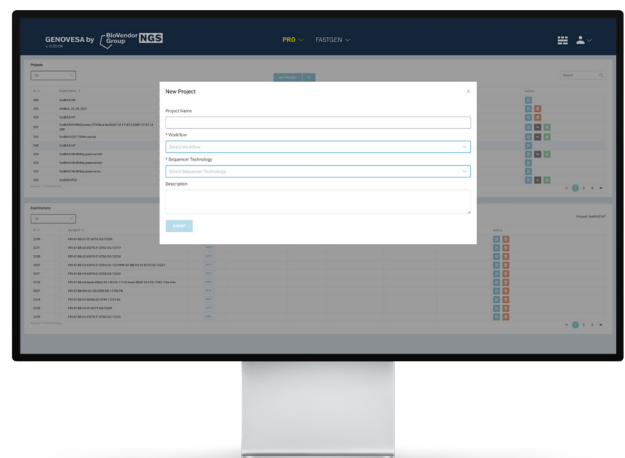
** The kits are CE-IVD certified and intended for professional use.

Coming soon: TKI | TPMT

Software

GENOVESA fastGEN module

- Advanced quality control of sequencing data
- Automatic notification of low-coverage regions for simple filtering of relevant variants
- Monthly update of annotation databases
- Customisation
- Patient data and variants stored in an internal database
- One-click report





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CCGATGGTACAGGCACA
GATGCTACAGGCCAGCT

0100001 1010101 10011010
0001001 1011010 11101010

PRODUCER:



DISTRIBUTOR:



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