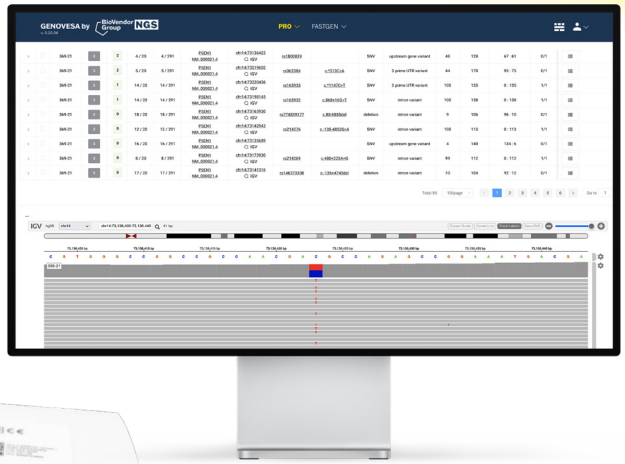
BioVendor Group NGS

BIOVENDOR.GROUP



fastGEN

A breakthrough system for a one-step NGS library preparation

ENG

GTTCAATATTGCGATGT
CCGATGGTACAGGCACA
GATGCTACAGGCCAGCT
0100001 1010101 1001101
0001001 1011010 1101010

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?

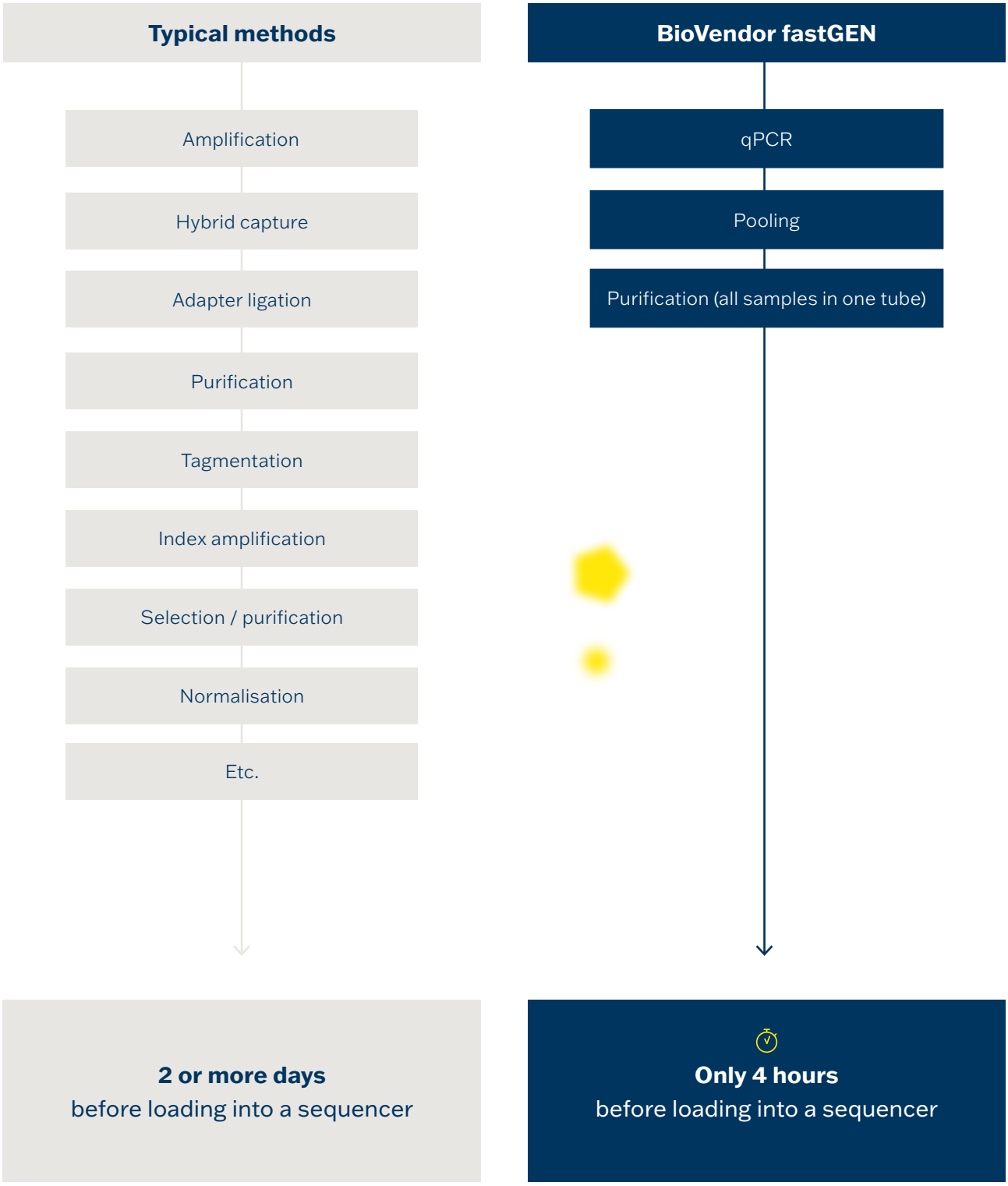
It is a revolutionary solution in speed, specificity, robustness, and user-friendliness. To me, fastGEN technology means a massive leap toward personalised diagnostics and medicine.

Jiří Brzobohatý, MSc.
Business Development Manager

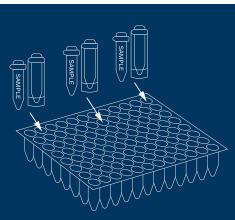
Modern diagnostics have to be fast, reliable, and easy-to-use. An all-in-one solution that reduces workflow from two days to four hours? Fascinating!

Iveta Tóthová, Ph.D.
Product & Scientific Manager

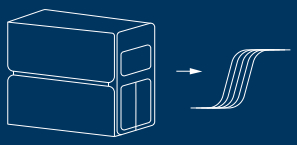
It’s faster. Way faster!

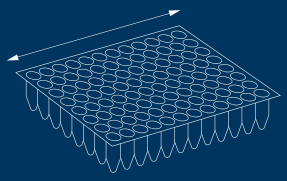


State-of-the-art prototyping workflow

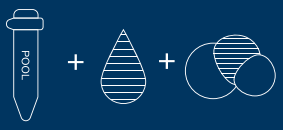
1. 

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

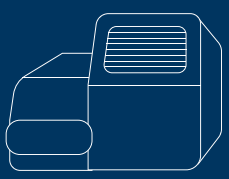
2. 
Reactions are set up using a Real-Time PCR device.

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.

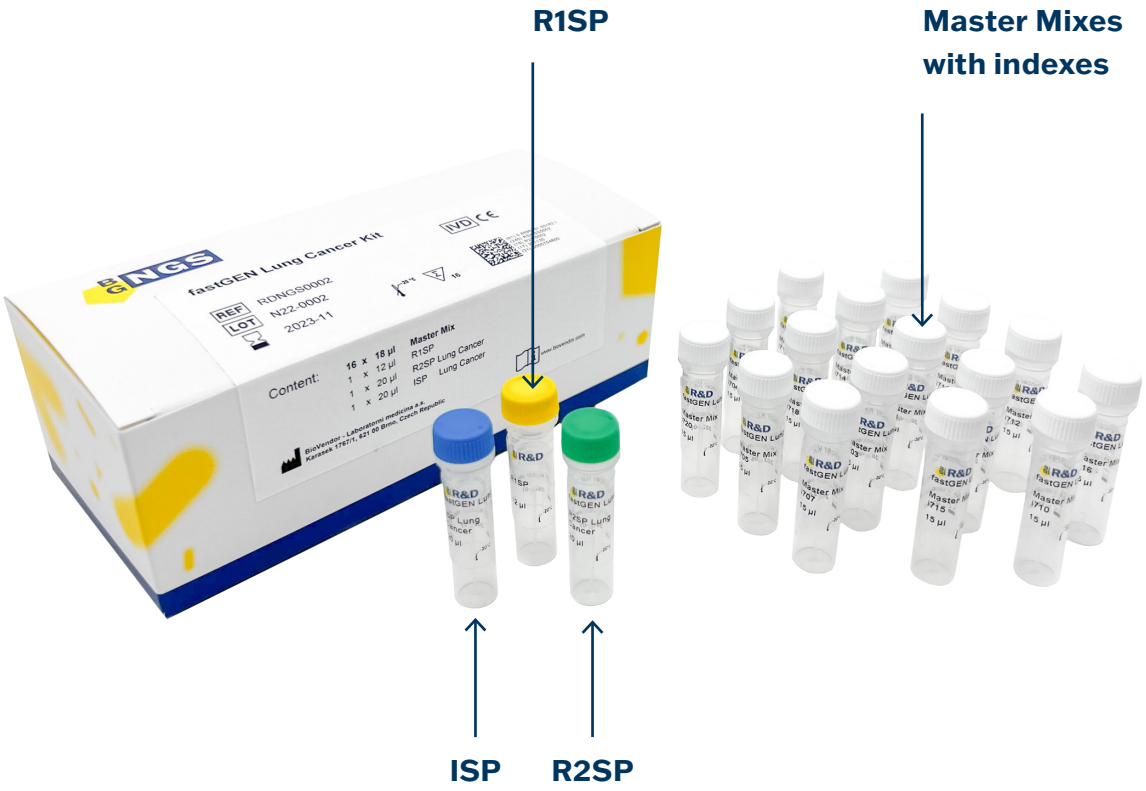
7. 
Raw data are analysed with GENOVESA software.

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.

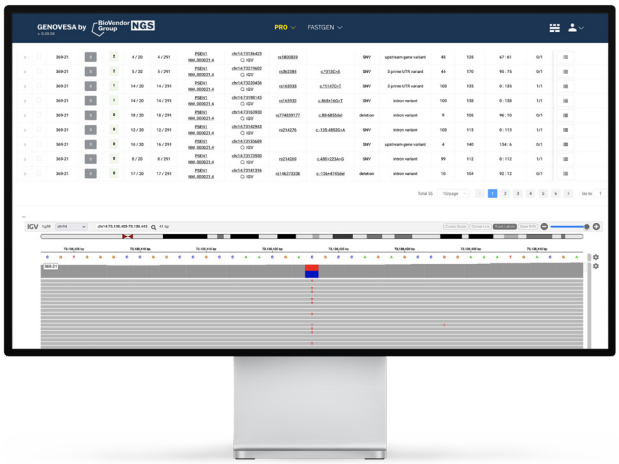
Kit components

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

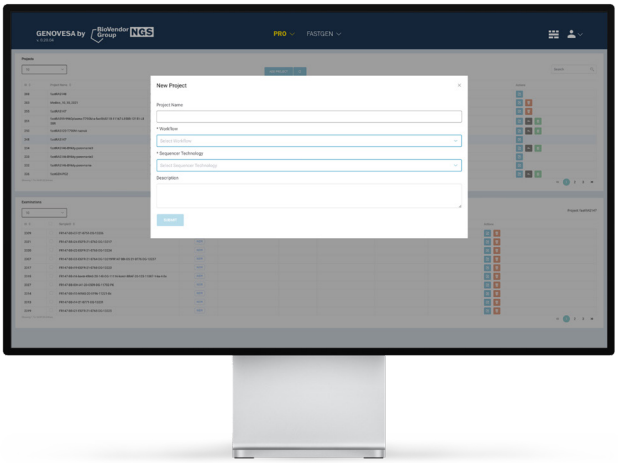
Cat. No.	Product	Gene	Detail	Utilisation	Status
RDNGS0001	fastGEN Solid cancer kit	*NRAS* *KRAS* *BRAF*	for rapid preparation of the sequencing library for genotyping the *KRAS*, *NRAS* (codons 12, 13, 59, 60, 61, 117, and 146) and *BRAF* (codons 600, 601, 594, 596, and 597) genes	to indicate the proper therapy for metastatic colorectal tumours or for melanoma patients	CE IVD*
RDNGS0002	fastGEN Lung cancer kit	*EGFR*	for rapid preparation of the sequencing library for genotyping the *EGFR* gene (exons 18, 19, 20, and 21)	to indicate the proper therapy for metastatic lung tumours	CE IVD*
RDNGS0003	fastGEN Brain cancer kit	*IDH1* *IDH2*	for rapid preparation of the sequencing library for genotyping the *IDH1* and *IDH2* genes (codons 132 and 172).	for the prognosis and stratification of brain tumours	CE IVD*
RDNGS0004	fastGEN *POLE* Cancer kit	*POLE*	for rapid preparation of the sequencing library for genotyping the *POLE* gene (codons 286, 411, 297, 459, 456, 367, 424, 295, 436, 444, and 368)	to indicate proper therapy for endometrial cancer	RUO

Coming soon: *PIK3CA | TP53 | TKI | TPMT | CFTR*
** The kits are CE-IVD certified and intended for professional use.*

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



FOLLOW US

BIOVENDOR.GROUP

GTTCAATATTGCGATGTT
CCGATGGTACAGGCACA
GATGCTACAGGCCAGCT

0100001 1010101 1001101
0001001 1011010 1110101

PRODUCER:

BioVendor R&D®

DISTRIBUTOR:

BioVendor MDx

BioVendor MDx a.s.
Karásek 1767/1, 621 00 Brno
Czech Republic
info@biovendor-mdx.com
www.biovendor.com

Contacts
Iveta Tóthová, PhD.
Product & Scientific Manager
tothova@biovendor-mdx.com

Jiří Brzobohatý, MSc.
Business Development Manager
brzobohaty@biovendor-mdx.com