CENTOGENE
THE RARE DISEASE COMPANY

NGS Panel Genomic

THE SMART SOLUTION

Key benefits of NGS Panel Genomic

HIGHEST DIAGNOSTIC ACCURACY & UTILITY

- Flexible panel composition
- Revisit genes as new information becomes available
- Unparalleled information content
- Increased coverage of genic regions
- Reduced PCR bias to minimize artefacts
- High accuracy detection of CNVs and complex gene rearrangements

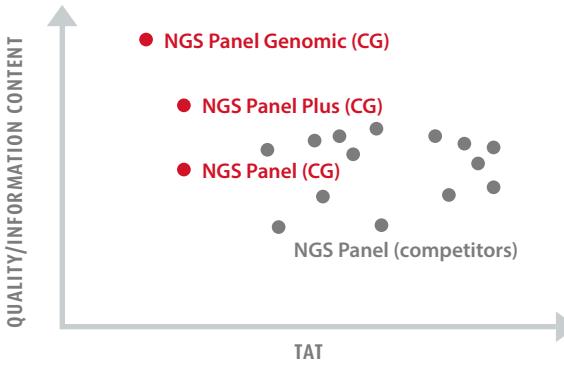
FASTEST TIME TO RESULTS

- No time lost with step-wise analysis
- Powered by whole genome sequencing, all information related to the phenotype available in < 25 business days
- We keep you updated on all emerging information regarding novel genes implicated in the phenotype or reclassification of variants that may have an impact on the patient diagnosis

ADAPTIVE PRICING STRUCTURE

- Cost effective for both out of pocket payment and for healthcare structures

MORE INFORMATION IN LESS TIME



Feel confident from the first step

Next generation sequencing (NGS) panels are a useful diagnostic tool when a patient's clinical story suggests a clear genetic etiology. However, even when the right genes are selected, there remains a 30-35% risk of a negative result*.

In order to reduce the chances of a 'non-conclusive' result, NGS panel testing can be combined with additional genetic tests. This increases the cost and time of diagnosis, and can still miss the relevant genomic region.

NGS Panel Genomic – The smart solution

CENTOGENE, a pioneer in clinical whole genome sequencing (WGS) data interpretation offers you a new solution: a panel at the price of NGS, but with the diagnostic accuracy of WGS.

- Validated by highly experienced medical experts
- Detailed assessment of clinical data
- Rapid turnaround time < 25 business days

* Based on CENTOGENE internal data

NGS Panel Genomic avoids the additional costs of step wise analysis related to add-on deletion/duplication, follow up exome or genome sequencing, mitochondrial analysis, or analysis of new genes associated with the phenotype when new information surfaces.

NGS Panel Genomic: unparalleled added value

	NGS PANEL GENOMIC	NGS PANEL PLUS
FOR	**Open-minded customers who want the best solution fast**	Conservative customers who still want a complete solution
GENES	**Composition of panel is flexible** **Includes research genes upon request**	Composition of panel is fixed
COVERAGE	**Average coverage >30x, 100% coverage >10x**	Average coverage 150-250x, 98-99% coverage >20x for targeted region
	No missing or poor quality regions	Missing or poor quality regions are patched with additional sequencing
	Entire gene is covered including exons, splice sites, introns and regulatory regions	±10 intronic bases flanking exon-intron boundaries to cover canonical splice sites
	ALL described disease-related mutations (i.e. deep intronic, splicing, regulatory mutations) are covered	ALL described disease-related mutations (i.e. deep intronic, splicing, regulatory mutations) are covered
COST IMPACT	**One cost – complete analysis**	Del/dup costs in addition to panel sequencing
	Panel can be followed up with WGS, and reanalysis done at a minor cost	Panel can be followed up with WES/ WGS as a new test
INFORMATION	**Genes outside the original panel can be revisited without re-doing the analysis**	When new genes related to the phenotype are identified, a fresh analysis is required either as a single gene test or new panel
	SNVs, CNVs, inversions, rearrangements, loss of heterozygosity, pharmacogenomics: all performed in one step	Additional testing required to detect CNVs
TAT	**< 25 business days**	< 25 business days

NGS PANEL	COMPETITORS
Customers who are looking for a cost-effective solution	Customers willing to compromise
Composition of panel is fixed	Composition of panel is fixed
Average coverage 150-250x, 98-99% coverage >20x for targeted region No Patchup ±10 intronic bases flanking exon-intron boundaries may NOT be fully covered NOT ALL described disease-related mutations may be covered	NOT ALL coding regions covered, despite claims of "100% coverage of targeted regions" or "100% coverage by target design" Missing or poor quality regions NOT patched to reduce costs Coverage often restricted to coding regions only, and often only a subset of these. Potentially informative sights can therefore be excluded to simplify and reduce costs.
Del/dup costs in addition to panel sequencing Panel can be followed up with NGS Panel Plus, WES, WGS as new tests	Del/dup costs in addition to panel sequencing Panel can be followed up with NGS Panel Plus, WES, WGS as new tests
Incomplete information on the genes of interest When new genes related to the phenotype are identified, a fresh analysis is required either as a single gene test or new panel Additional testing required to detect CNVs	Incomplete information on the genes of interest When new genes related to the phenotype are identified, a fresh analysis is required either as a single gene test or new panel Additional testing required to detect CNVs
< 25 business days	> 30 business days

Please visit our website
for more information:

www.centogene.com

CONTACT DETAILS:

CENTOGENE AG

Am Strande 7
18055 Rostock
Germany

customer.support@centogene.com
+49 (0)381 80 113 - 416
+49 (0)381 80 113 - 401

CLIA #99D2049715

CAP ACCREDITED
COLLEGE of AMERICAN PATHOLOGISTS

ISO 15189
CAP ACCREDITED
COLLEGE of AMERICAN PATHOLOGISTS

V1.6eng_August2018