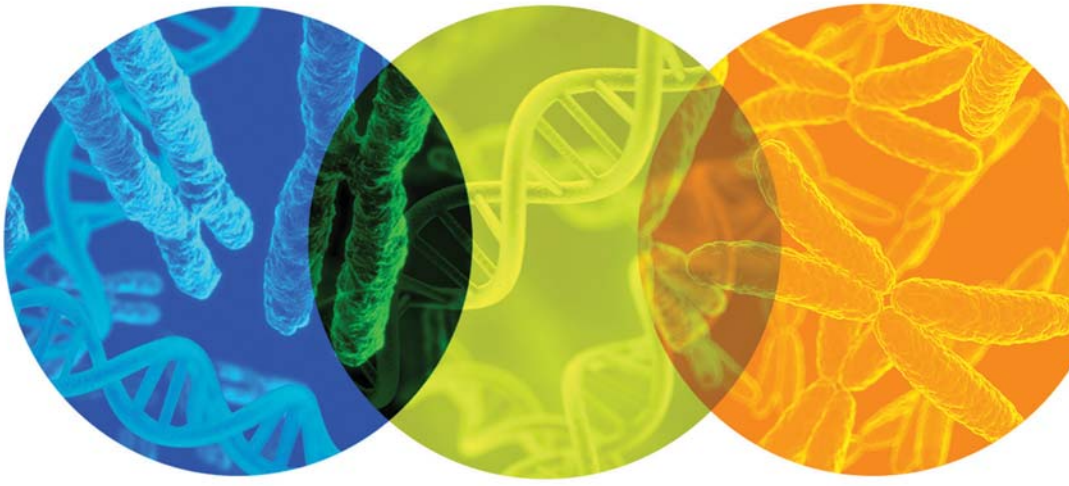
OneSeq

ONE ASSAY. ONE SOLUTION.

OneSeq Constitutional Research Panel

Powered by SureSelect

One Comprehensive Target Enrichment Panel for
Genome-Wide Copy Number, LOH and Targeted Mutations



Agilent Technologies

OneSeq Target Enrichment

From the pioneers in target enrichment comes another industry first—genome-wide copy number variants, copy-neutral LOH, point mutations and indels in one assay.

Building upon SureSelect's ability to enable the success of constitutional and advanced clinical research, Agilent continues the innovation with comprehensive, all-in-one Agilent OneSeq Target Enrichment.

A revolutionary advancement in next generation sequencing technologies, OneSeq allows for the combined detection of CNVs and SNPs, facilitating cytogeneticists and clinical researchers to make rapid discoveries of new genes associated with syndromes, and to investigate the role of CNVs and mutations in many genetic disorders.

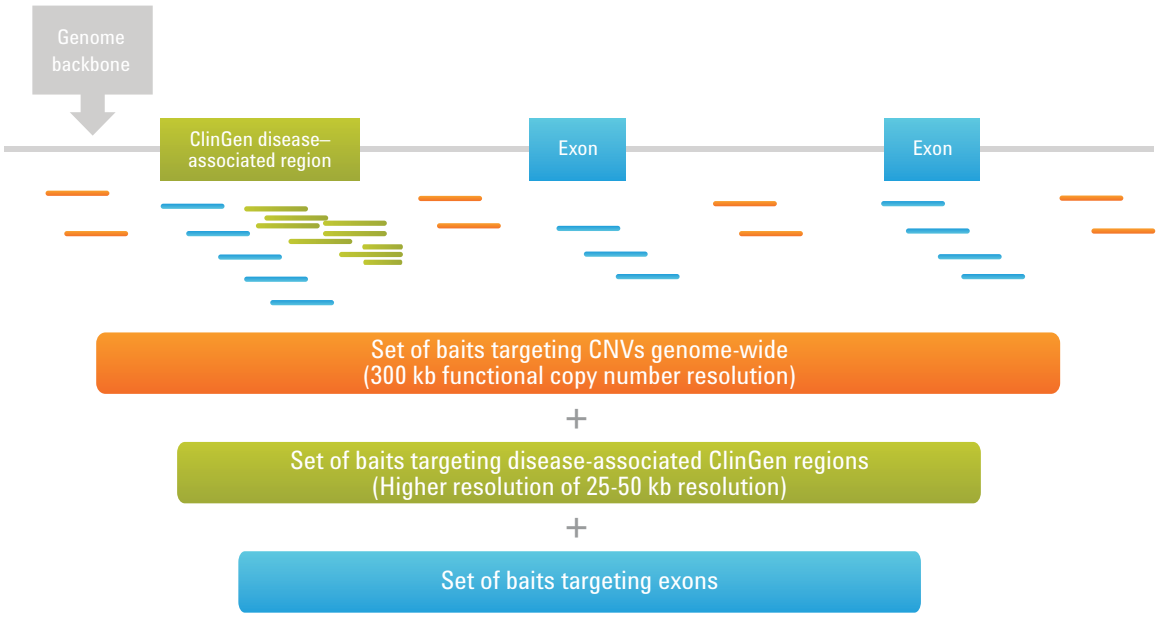
When compared to deep whole genome sequencing, OneSeq provides a more cost-effective and efficient solution for accurate detection of genomic aberrations and variants coupled with integrated data analysis using Agilent's SureCall software.

ONE Revolutionary Assay

Comprehensive, all-in-one detection of genome-wide CNVs, LOH and targeted mutations

Study both CNVs and mutations for your constitutional studies using one assay. OneSeq targets a functional copy number resolution of 300 kb in the genome-wide backbone, with an even higher resolution of 25-50 kb targeted in disease-associated regions as defined by ClinGen.

The targeting of genomic regions with high minor allele frequency SNPs allows for detection of copy neutral LOH at 5 Mb resolution. Added gene panels target your exonic regions of interest with catalog or custom probes for the detection of indels and point mutations at high read depths.



Design schema used for the OneSeq Constitutional Research Panel.

ONE Simple Solution

Integrated data analysis with SureCall software

Agilent's SureCall desktop application combines both novel and widely accepted open source algorithms, integrating data analysis for the detection of genome-wide CNVs, copy neutral LOH, point mutations and indels in one.

SureCall enables you to analyze, visualize and contextualize OneSeq data using a single application—without the need for coding or special hardware.

Agilent SureCall screen images of point mutation, indel, CNV, and cnLOH data in affected chromosomes.

ONE Streamlined Workflow

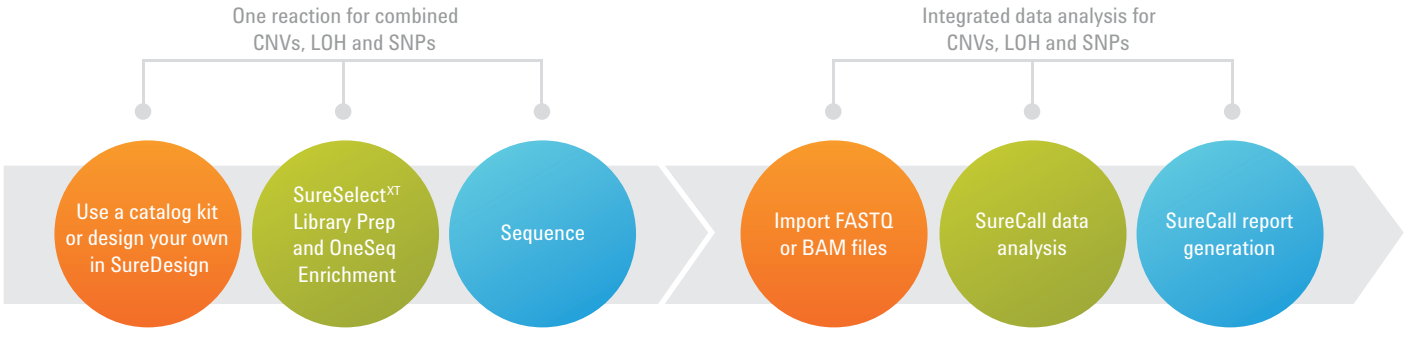
More information in a single reaction

With budgets and timelines tighter than ever, there is a growing need for more efficient workflows in laboratories. At the same time, there is increasing interest in analyzing copy number from NGS data. OneSeq is designed to streamline workflows by combining the enrichment of genome-wide copy number changes, loss of heterozygosity and targeted mutations all-in- one assay, creating a more complete picture.

Compared to WGS, with its high sequencing costs and overwhelming amounts of data, OneSeq is the right choice for a more cost-effective and targeted solution.

And when combined with Agilent's online design portal, SureDesign, researchers can simply customize their gene panels and add to the OneSeq CNV Backbone.

One library prep means faster turnaround times—increasingly important in clinical research.



One streamlined workflow for CNVs, LOH and SNPs from sample to data.

OneSeq provides unparalleled flexibility and customization, and is available in the following formats:

- OneSeq Constitutional Research Panel:
  - Catalog kit includes baits for the combination of a CNV backbone + all content from the Agilent SureSelect Focused Exome Panel, targeting disease-associated genes (28 Mb design)
  - Functional copy number resolution of 300 kb, with resolution of 25-50 kb in disease-associated ClinGen regions
  - Genome-wide detection of LOH as small as 5 Mb
  - Gain more information cost-efficiently with only 7 Gb of sequencing, compared to deep 30X WGS
  - Optimized for SureSelect^{XT} Library Prep Reagents (sample input as low as 200ng)
- OneSeq CNV Backbone + Custom Panel:
  - The CNV backbone (12 Mb design) can be added to any custom target gene panel, up to 12 Mb in SureDesign

Also available separately:

- SureSelect^{XT} Reagent Kit, HSQ
- Agilent Reference DNA, Male and Female:
  - Ready to use: Sequence and analyze sex-matched or mismatched reference and your sample DNA side-by-side
  - High quality product: Well-characterized DNA with known aberrations from normal male and female individuals of Caucasian ethnicity

Ordering Information

	Description	Part Number
Target Enrichment for SNPs, LOH and genome-wide CNV detection	OneSeq Constitutional Research Panel, 16rxn	5190-8702
	OneSeq Constitutional Research Panel, 96rxn	5190-8703
	OneSeq Constitutional Research Panel, 96rxn Auto	5190-8704
	OneSeq CNV Backbone + Custom Panel (up to 12 Mb design)	Please refer to website for custom part number configurations (www.genomics.agilent.com)
Library Prep Reagents	SureSelect^{XT} Reagent Kit, HSQ, 16rxn	G9611A
	SureSelect^{XT} Reagent Kit, HSQ, 96rxn	G9611B
	SureSelect^{XT} Reagent Kit, HSQ, 96rxn Auto	G9641B
Reference DNA	OneSeq Reference DNA, Male; 1 vial, 50rxns	5190-8848
	OneSeq Reference DNA, Female; 1 vial, 50rxns	5190-8850

FOR MORE INFORMATION:
www.agilent.com/genomics/oneseq

NGS resource page:
www.agilent.com/genomics/NGSResource

U.S. and Canada, call **800-227-9770** or for other regions, consult **www.agilent.com/genomics/contactus**

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