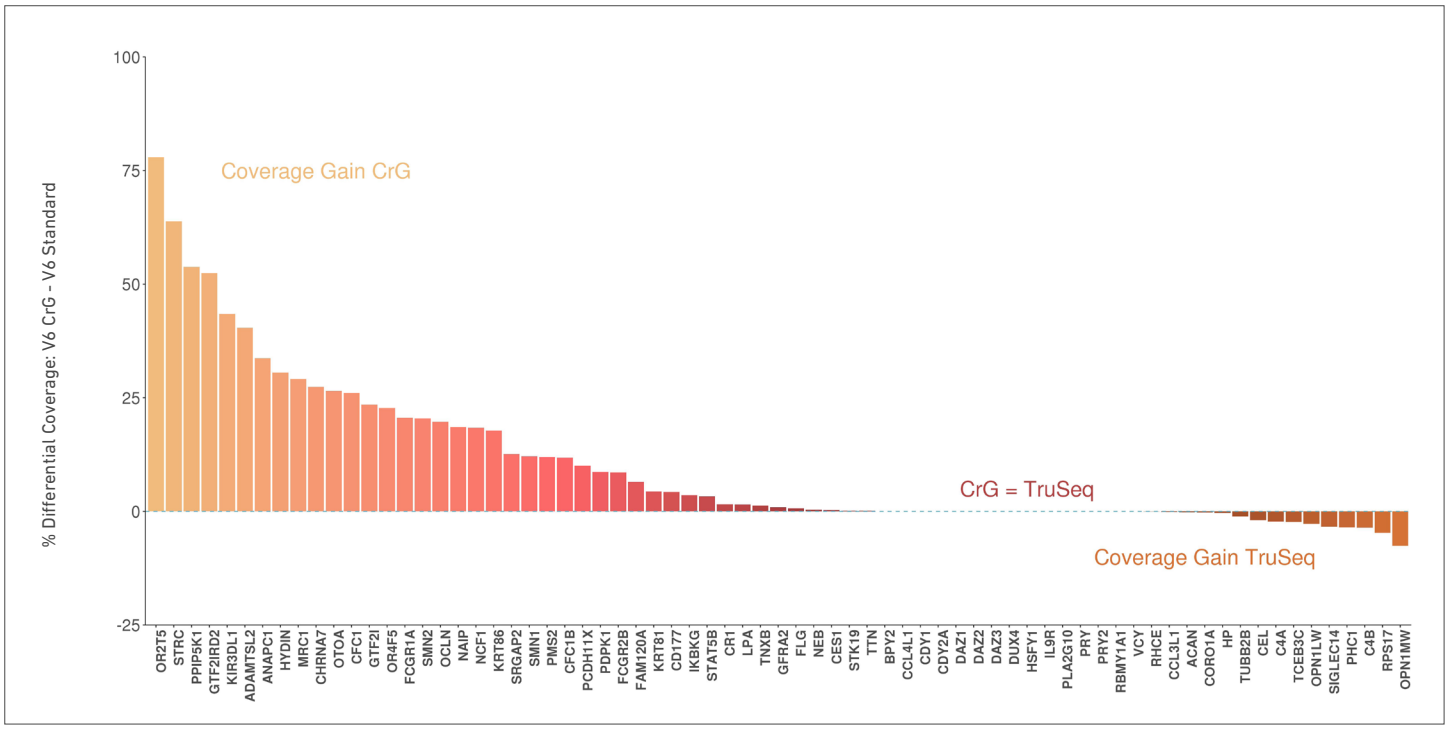
Reach Beyond the Standard Exome

THE CHROMIUM EXOME SEQUENCING SOLUTION

The Chromium Exome Sequencing Solution enables you to fully reconstruct long range haplotypes, reveal structural variation, and detect variants in previously inaccessible and complex regions of the genome. Partitioning and barcoding high molecular weight (HMW) DNA generates Linked-Reads, where short-read information can be placed within the context of the whole genome.

By adding the Chromium Exome Sequencing Solution to your choice of bait sets, you now gain access to genes previously inaccessible to standard exome capture methods due to high sequence homology. This solution also reveals the true diploid nature of the human genome and unlocks the full spectrum of variants, such as small nucleotide variants (SNVs), indels, and large-scale structural rearrangements (including inversions and translocations).

Access more medically relevant genes with the Chromium Exome Sequencing Solution



Shown in the figure above is the net coverage difference between the 10x Genomics Chromium Exome Sequencing Solution (CrG) and Illumina TruSeq Exome library (PCR-free short-reads; TruSeq) for 71 genes implicated in Mendelian disease located in NGS dead zones. For a majority of the genes that are accessible to short-read sequencing, the Chromium Exome Sequencing Solution provides significantly increased coverage. Traditional short-reads, however, only provide a modest improvement in a small percentage of NGS dead zone genes.

Learn More at
10xgenomics.com/exome

10x GENOMICS

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HIGHLIGHTS

- Detect variants in genes inaccessible to standard short-read libraries, especially regions of high sequence homology
- Fully reconstruct long range haplotypes
- Detect large scale structural variants (SVs), including gene fusions, duplications and inversions
- High-quality libraries from only 1ng of genomic DNA
- Simplified and fully automated workflow

PRODUCTS	PRODUCT CODE
Chromium Genome HT Library & Gel Bead Kit v2 for Exome Application, 96 rxns[1]	1000018
Chromium Genome Library & Gel Bead Kit v2 for Exome Application, 16 rxns[1]	1000017
Chromium Post Capture Amplification Kit, included with 1000017 (1 qty), 1000018 (6 qty)[1]	1000007
Chromium Genome Chip Kit v2, 48 rxns[1]	120257
Chromium i7 Multiplex Kit, 96 rxns	120262
Chromium Automation Accessory Kit	1000008
Chromium Controller & Accessory Kit, 24 Mo. Warranty	120246
Chromium Controller & Accessory Kit, 12 Mo. Warranty	120223
Long Ranger Analysis Pipelines go.10xgenomics.com/exome/long-ranger	DOWNLOAD
Loupe Genome Browser go.10xgenomics.com/exome/loupe-genome-browser	DOWNLOAD

[1] Available for use only with the indicated Chromium Controller (PN -120223 or 120246).

FEATURED PUBLICATIONS

Kawazu M *et al.* Integrative analysis of genomic alterations in triple-negative breast cancer in association with homologous recombination deficiency. *PLoS Genet.* 2017 Jun. doi: 10.1371/journal.pgen.1006853. PMID: 28636652.

Narasimhan VM *et al.* Health and population effects of rare gene knockouts in adult humans with related parents. *Science.* 2016 Apr. doi: 10.1126/science.aac8624. PMID: 26940866.

Hui WW *et al.* Universal haplotype-based noninvasive prenatal testing for single gene diseases. *Clin Chem.* 2017 Feb. doi:10.1373/clinchem.2016.268375. PMID: 27932412.

APPLICATIONS

- Exome Sequencing
- Structural Variant Detection
- SNV Detection
- Haplotype/Phasing

RESEARCH AREAS

- Genetic Health
- Inherited Disease
- Cancer Genomics
- Population Genetics
- Agrigenomics

ADDITIONAL RESOURCES

LINKED-READS	10xgenomics.com/linked-reads
DATASETS	go.10xgenomics.com/exome/datasets
SEMINARS	go.10xgenomics.com/exome/seminars
APPLICATION NOTES	go.10xgenomics.com/exome/app-notes
TECHNICAL SUPPORT	go.10xgenomics.com/exome/support
PUBLICATIONS	go.10xgenomics.com/exome/pubs

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