ResolveOME™

BioSkryb GENOMICS

Decipher Mechanisms of Gene Expression Changes with Single-Cell Multiomics

ResolveOME Whole Genome and Transcriptome Amplification System

Enables whole genome and transcriptome sequencing from a single cell

Uses a single cell for the construction of a whole-genome and full-length mRNA transcriptome library

Provides industry-leading genomic coverage and resolution

Leverages a novel patented technology, primary template-directed amplification (PTA), to dramatically increase genomic capture and coverage to 97%[1,2]

Superior transcriptome capture and coverage

Increases gene body coverage, representation across transcript sizes, and variant calling versus droplet-based RNA sequencing methods[3,4]

Fits into established laboratory protocols

Compatible with various methods of single-cell singulation, sequencing platforms, and downstream applications, including whole exome and panel-based sequencing[4]

Scales to experiment size

Low-cost, automation-compatible, scalable approach with up to 384 reactions

Bioinformatics analysis included

Bioinformatics analysis and data visualization through **BaseJumper®** bioinformatics platform

References:
1. Gonzalez-Pena V, et al. Proc. Natl. Acad. Sci. U.S.A. 2021; 118 (24): e2024176118; doi: 10.1073/pnas.2024176118
2. Luquette L, et al. Nat Gen. 2022; 54: 1564–1571. doi: 10.1038/s41588-022-01180-2
3. Marks JR, et al. bioRxiv. 2023; doi: https://doi.org/10.1101/2022.04.29.489440
4. Data on file

Assay Performance

ResolveOME WGS DNA Performance	
Accuracy	99.99%
Sensitivity	96.65%
Specificity	99.99%
Allelic Balance	91.20%
Genomic Coverage	97.59%
ResolveOME WTS RNA Performance	
Protein Coding Genes	3451 ± 732
Concordance	0.97
Variance (CV)	32.9%

Figure 1: Assay Performance Characteristics. Analysis of NA12878 single cells prepared with ResolveOME Whole Genome Single-Cell Core Kit versus gold standard reference. WGS: whole genome sequencing, WTS: whole transcriptome sequencing.

A Revolution in Resolution From Each Cell

DNA

- Resolve SNV
- Resolve SV
- Resolve CNV
- Resolve Ploidy
- Resolve Exomes
- Resolve Genomes
- Resolve Panels
- Resolve Edits

DNA + RNA

- Resolve Transcriptomes
- Resolve Isoforms
- Resolve Cell ID
- Resolve Fusions

Resolve More.

ResolveServices℠

Custom-built service projects, from singulating cells to figures. Services can include:

- Cell and/or nuclei sorting from fresh or frozen cells and tissues
- Whole genome amplification or whole genome and transcriptome amplification
- Exome capture or targeted protein analysis
- Library preparation for downstream applications
- Analysis using our bioinformatics platform, **BaseJumper®**, or bespoke computational analysis

Products

Codes	Product	Description
100956 100957	ResolveOME™ Whole Genome and Transcriptome Single-Cell Core Kit	PTA-based kit for whole genome and transcriptome amplification plus NGS library preparation from single cells. 96 or 384 reaction formats.
100954 100955	ResolveDNA® Whole Genome Single-Cell Core Kit	PTA-based kits for whole genome amplification plus NGS library preparation from single cells. 96 or 384 reaction formats.
100545	ResolveDNA® Whole Genome Amplification Kit	PTA-based kit for whole genome amplification from as little as 4 pg input DNA. Capable of 96 or 384 reactions.
100605	BaseJumper® Bioinformatics Platform	A platform for multiomic data analysis and visualization.
Early-Access	ResolveXOME™ Exome Capture Module	Exome capture module for use with ResolveDNA or ResolveOME Single-Cell Core Kits.

For a complete list of services, products, and pricing, email a member of our team, info@bioskryb.com

BioSkryb GENOMICS

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