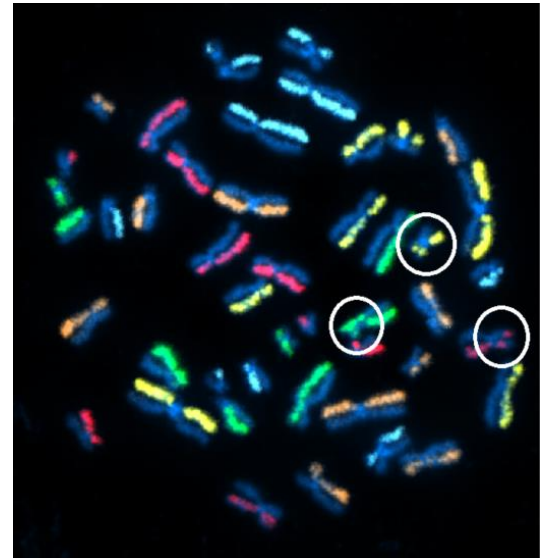


Monitor Structural Variants and Genomic Integrity with dGH SCREEN™ Assays

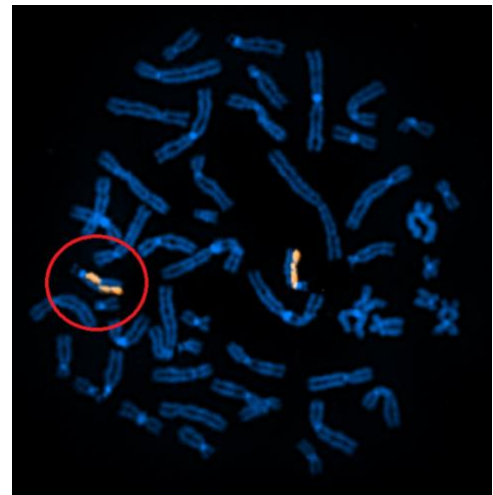
directional Genomic Hybridization™ Single-Cell Rearrangement Event Evaluation and Numbering (SCREEN) is a single-cell assay designed to monitor structural variants throughout the genome in an unbiased fashion. By utilizing directional Genomic Hybridization technology, combined with strategic labeling patterns and chromosomal morphologies, dGH SCREEN™ provides the most comprehensive and high-resolution karyographic analysis available. dGH SCREEN™ is designed to discover and quantify structural variants within heterogeneous cell populations and can be used to analyze blood derived cells, cell lines, iPSCs, CAR T and many more cell types.



Above: dGH SCREEN™ detects multiple structural rearrangements in a metaphase cell from a genetically modified (GM) cell line.

Key analytic features of dGH SCREEN™ Assay Services

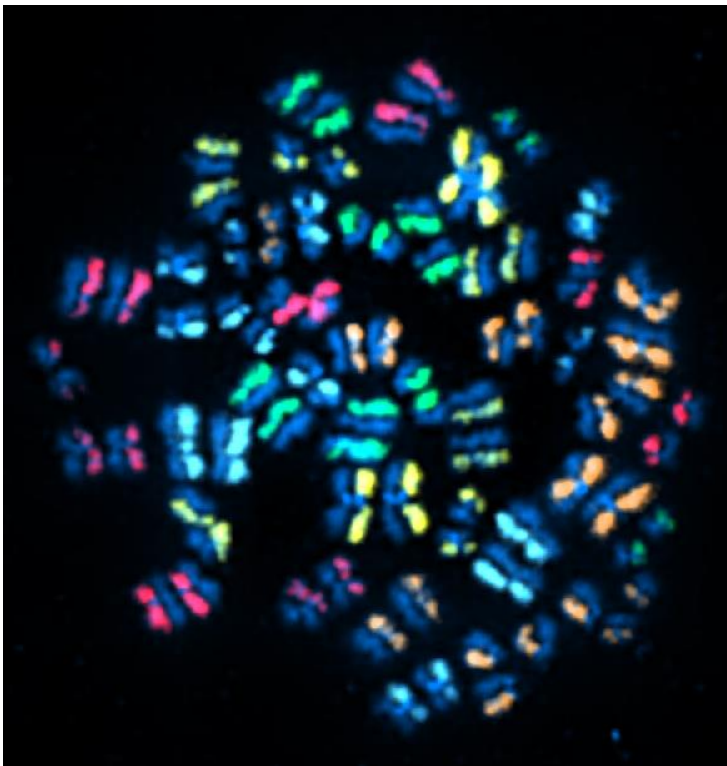
- Exchange events including reciprocal, balanced and allelic translocations
- Orientation events including inversions, recombination and sister chromatid exchanges
- Chromosomal gain and loss events, including sister chromatid fusions, dicentrics and acentrics, fragmentation and chromothripsis, polypoidy, aneuploidy, monosomy and polysomy
- Rearrangements as small as 5 kb have been detected.



Above: Inversion / sister chromatid exchange in chromosome 13 detected by dGH SCREEN™ in a GM cell line.

Applications of dGH SCREEN™ Assay Services

- Monitor cellular engineering outcomes
 - Genome-wide, cell-by-cell and chromosome-by-chromosome assessment of structure, pre- and post-modification
- Orthogonal data for sequencing confirmation
 - Genome-wide, confirmatory data regarding rearrangements predicted with long read and other NGS analyses
- Structural integrity for quality control
 - Measure the relative stability of cell lines
 - Screen and compare candidate cell lines, based on total genomic structural variation metrics
- Genomic stability assessment
 - Track persistence of variants over time, passages, and process variable changes



Left : dGH SCREEN™ assay reveals duplicated chromosomes in a lymphoblastoid cell line, indicating endoreduplication and possible genomic instability.

Working with KromaTiD is Easy!



- Customer
- KromaTiD
- KromaTiD & Customer

Our expert team of scientists collaborate closely with you from start to finish to ensure the highest quality data and best service experience possible.

Cytogenetic Assays for Genomic Integrity

By partnering with KromaTiD, you can leverage the unique combination of our complete suite of single-cell cytogenetic assays for your comprehensive genotoxicity assessment and quality control testing.

We work with you to choose the best combination of our assays, including dGH in-Site™, dGH SCREEN™, Genomic Integrity G-Band Karyotyping, and digital PCR, to create a customized analytical package.

Contact us to learn more: kromatid.com