

KROMASURE™ KBand

Genomic Integrity G-Banding and Advanced Karyotyping

In Cell and Gene Therapy applications, cells undergo significant genomic manipulation during the gene editing process. In response, KROMATID developed KROMASURE™ KBand, a fit-for-purpose method of genomic integrity G-Banding. The process begins with unbiased G-band karyotyping, measuring both donor and treated cells. The standard ISCN analysis from each sample is parsed into individual Genomic Integrity reports with prevalence tables.

This provides a baseline event rate for the donor as a reference for the structural variants (SVs) related to editing and cell product expansion. Our team of experts reports this data in our **Genomic Integrity Pair-Wise Comparison Report**, which calculates the statistical significance of the differences between the treated and control samples. For investigators needing resolution beyond the $\approx 5\text{--}10$ mb provided by G-banding, KROMATID offers other Genomic Integrity Assays based on our proprietary KROMASURE platform, providing at least two orders of magnitude improved resolution for structural variant detection.

GENOMIC INTEGRITY G-BANDING



Robust G-Banding Process with statistical comparison of treated vs reference cells



Assess hundreds of cells for rare genetic events, surpassing the standard 20 cell analysis



Detect Genetic drift: Insightful identification of chromosomal changes over time



GLP and GMP services with data reports fit for regulatory filing packages

WHAT IT DETECTS

- Detects large SVs including inversions, translocations and monosomies
- Monitor for sub-clonal outgrowth, instability and chromothripsis
- A measurement of the SV variance from Donor to Product regardless of causation
- Lower limit of SV frequency determined by number of cells analyzed
- Orthogonal to molecular genomic methods such as NGS and PCR