KromaTiD

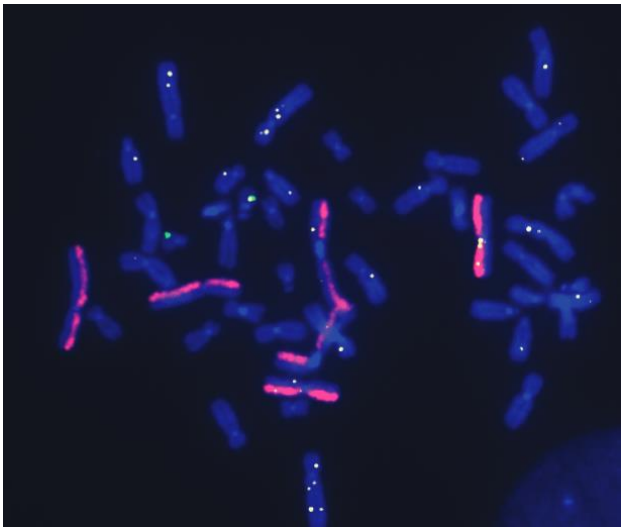
DATA SHEET

Qualify your Gene Editing with dGH in-Site™ Assays

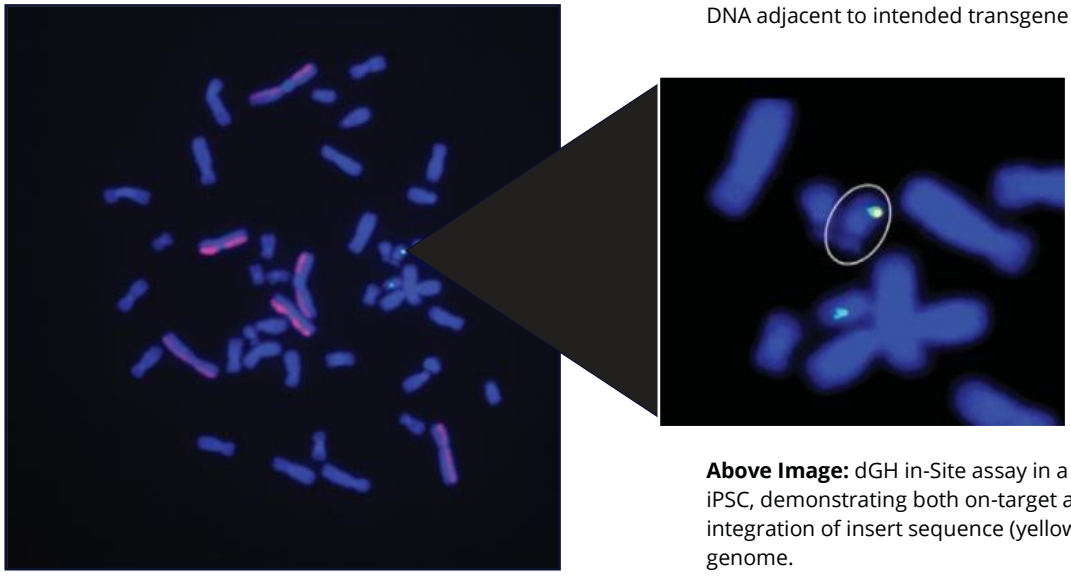
KromaTiD's directional Genomic Hybridization™ (dGH™) technology provides the highest resolution and lowest limit of detection available for inversions, translocations, and other structural variants.

adGH in-Site™ provides single-cell, genome-wide tracking of inserted DNA cassettes as small as 2kb. By comparing pre- and post-cell engineering outcomes this assay provides the most detailed measure of structural heterogeneity available.

Using dGH in-Site™, we can track the structural variants that may impact your cell engineering program most: rearrangements to TRAC and B2M loci, on-and off-target insertions of your transgenes including insertions at potentially genotoxic or oncogenic off-target sites, and indications of stability or instability.



Above Image: Chromosomes 1, 2 and 3 targeted with dGH™ paint probes labeled in Atto 550. Custom dGH in-Site™ probe in cy5 targets all transgene insertion sites. Custom dGH in-Site™ "babysitter probe" in 6-FAM targets DNA adjacent to intended transgene insertion site.



Above Image: dGH in-Site assay in a CRISPR/Cas edited iPSC, demonstrating both on-target and random integration of insert sequence (yellow) throughout the genome.

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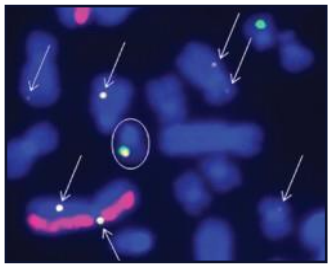
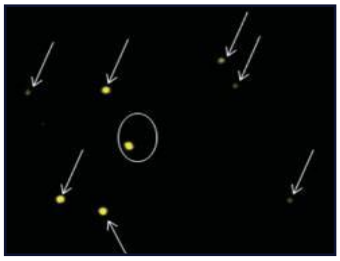
Key features and benefits of dGH in-Site™ Assay Services

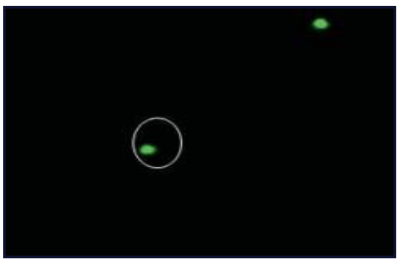
- Track and locate transgenes and DNA cassettes as small as 2kb through direct visualization.
- Available for any sequenced mammalian genome
- Multi-channel fluorescence for flexible, multiplexed panel design
- An excellent orthogonal analysis to PCR/sequencing techniques
- We provide you a detailed report of metrics and images including:
    - On- and off-target integrational copy number
    - Insert site scoring summary, cells with events
    - Example structural variant images
    - Distribution of integrations on both a single cell and genome-wide basis



Channel 1: Fluorescence channels over laid, insert and bracketing probes both visible on one copy of target chromosome and off-target inserts visible in multiple chromosomes.



Channel 2: Yellow fluorescence channel, on-target insertion visible on one homolog (circled) and multiple off-target sites throughout genome.



Channel 3: Green fluorescence channel. Bracketing probes visible on both homologs of target chromosome. Circled green probe signal shows insertion (seen on channel 2) while un-circled green probe does not.

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