

dGH in-Site™ CAR-T Kit 1 (TRAC & B2M)

Frequently Asked Questions

Q: What is the smallest sized rearrangement that can be detected using the dGH in-Site™ CAR-T Kit?

A: directional Genomic Hybridization™ (dGH™) and KromaTiD's dGH™ probes are used to track DNA targets smaller than 2 kilobases. Where a probe with a larger target range is being used, a rearrangement of that smaller size may still take place within a portion of the target locus. In that case, a portion of the total signal can appear as a separate, small signal of its own and be visualized under the right conditions.

Q: Where can I find the exact coordinates and sequences of the probes included in the dGH in-Site™ CAR-T Kit?

A: For more information email techsupport@kromatid.com.

Q: What type of microscope filters are needed to image the dGH in-Site™ CAR-T Kit?

A: The fluorophores available for labeling the kit's standard or additional custom probes are 6-FAM, Atto 550, Texas Red and Atto 643. Light filter cubes with spectral values compatible with those fluorophores are necessary. Custom probes can be labeled with other non-standard fluorescent labels upon request. The wavelength values corresponding to each fluorophore are presented in Table 1, as well as in the dGH in-Site™ CAR-T Kit protocol.

Fluorophore	Excitation/Emission (nm)
6-FAM	490 / 525
Atto550	555 / 576
Texas Red	595 / 620
Atto643	643 / 669

Table 1 identifies wavelengths belonging to each fluorophore.

Q: Can the dGH in-Site™ CAR-T Kit be used on interphase cells?

A: Performing dGH™ assays on interphase cells is possible and is an avenue to generating useful data, but some of the advantages dGH™ has over other technologies will be negated. Running a dGH™ in-Site™ assay on interphase cells will still confer the advantage of higher signal-to-noise ratio than with standard FISH. However, with the probes included in the dGH in-Site™ CAR-T Kit, metaphase cells are required to distinguish between certain abnormalities, such as a trisomy vs. some translocations, for example.

Q: Can the dGH in-Site™ CAR-T Kit be used to help interpret results obtained from other genetic analysis platforms?

A: The dGH in-Site™ CAR-T Kit is ideal for analyzing chromosomal structural rearrangements which typically cause aberrant results on whole genome platforms like aCGH and next-gen sequencing. dGH™ technology is the ideal assay with which to control for the limitations of other assays, for example, the inability to detect balanced translocations or to unequivocally detect abnormalities present at very low frequency.

Q: What size transgenes can custom dGH™ probes be designed to target?

A: KromaTiD designs dGH™ probes for targets ranging in size from entire chromosomes down to less than 2 kilobases.

Q: What will be the cost of a custom dGH™ probe for my transgene to run with the dGH in-Site™ CAR-T Kit?

A: For more information email sales@kromatid.com.

Q: How many hybridizations does the dGH in-Site™ CAR-T Kit allow me to run?

A: The kit provides sufficient reagents for customers to run at least 10 full-slide hybridizations.

Q: What equipment is required to run the dGH in-Site™ CAR-T Kit?

A: Any lab already equipped to create metaphase slides and perform FISH assays can run the dGH in-Site™ CAR-T Kit but may need to add one piece of equipment: dGH™ assays require a UV crosslinker capable of 365 nm UV light output.

Q: Can the probes in the dGH in-Site™ CAR-T Kit detect a specific breakpoint?

A: All dGH™ probes are designed using bioinformatics software and locus coordinates are one of the input parameters in that process. This means that dGH™ probes are designed to interrogate DNA at specific loci, down to the breakpoints defined by known coordinates.

For more information email sales@kromatid.com or techsupport@kromatid.com