

dGH Assay Hardware Requirements

This document provides details on key pieces of equipment needed to use KromaTiD's directional Genomic Hybridization (dGH™) probes in your laboratory. A full equipment list is provided in the dGH Hybridization Assay protocol available on our website. Here, specific technical details needed to optimize assay performance are provided.

UV IRRADIATION

All samples undergoing dGH must receive a controlled level of ultraviolet (UV) light exposure. Exposure to the proper level of UV light preferentially nicks daughter strands in the sample cells and is an essential step in the dGH process.

This controlled UV irradiation requires a UV crosslinker and the following technical recommendations will help produce reliable results when performing dGH assays in your lab.

UV Crosslinker Unit.

KromaTiD recommends the Boekel™ Scientific UV Crosslinker AH 115V / 230V (Part No. 234100 / 234100-2).

Wavelength and Bulbs.

For dGH in-Site assays, use 368 nm bulbs (Boekel Part No. 920-0307).

For dGH SCREEN assays, use 306 nm bulbs (Boekel Part No. 920-0306).

MICROSCOPY

Light source.

Broad spectrum white light source or multiple LED and/or laser sources.

Light filters / Filter cubes.

Light filters compatible with the fluorophores (probe color labels) being used are required.

Fluorophore	Excitation/Emission (nm)
6-FAM / Spectrum Green	490 / 525
ATTO 550 / Spectrum Orange	555 / 576
Texas Red	595 / 620
ATTO 643 / 647 / Cy5	643 / 669
ATTO 425/Aqua	436 / 485

Objective Lens.

Oil immersion objective with high numerical aperture (1.4 NA recommended) and high magnification: 60X at a minimum, 100X recommended.

Camera.

Monochrome CMOS or sCMOS.

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