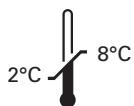


# Kreatech™ FISH probes

## Product Information Sheet

KBI-10303

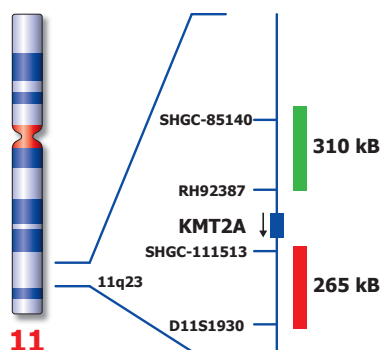
KMT2A (11q23) Break



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Not to scale

## Kreatech™ KMT2A (11q23) Break FISH probe

**Introduction:** One of the most important translocation in human acute myeloid leukemia (AML) and acute lymphoblastic leukemia (ALL) involves chromosome band 11q23, which rearranges with more than 30 other chromosomal regions. KMT2A (previously known as MLL) translocations result in the generation of fusion proteins that retain the KMT2A N-terminus, including both an A-T hook domain and a region similar to mammalian DNA methyltransferase. In all age groups and all phenotypes of leukemia, an 11q23 translocation carries a poor prognosis.

**Intended use:** The **KMT2A (11q23) Break** FISH probe is optimized to detect translocations involving the KMT2A gene region at 11q23 in a dual-color, split assay on metaphase/interphase spreads, blood smears and bone marrow cells.

The probe is recommended to be used in combination with one of the Kreatech Pretreatment kits providing necessary reagents to perform FISH on various sample types for optimal results. (see also [www.LeicaBiosystems.com](http://www.LeicaBiosystems.com) and look for Kits & reagents)

**Critical region 1 (red):** The **distal KMT2A** gene region probe is direct-labeled with PlatinumBright™550.

**Critical region 2 (green):** The **proximal KMT2A** gene region probe is direct-labeled with PlatinumBright™495.

**Reagent:** Kreatech probes are direct-labeled DNA probes provided in a ready-to-use format. Apply 10 µl of probe to a sample area of approximately 22 x 22 mm.

**Please refer to the Instructions for Use for the entire Kreatech FISH protocol.**

**Kreatech FISH probes are REPEAT-FREE™ and therefore do not contain Cot-1 DNA. Hybridization efficiency is increased and background, due to unspecific binding, is highly reduced.**

**Interpretation:** The **KMT2A (11q23) Break** FISH probe is designed as a dual-color split probe to detect inversion or translocations at 11q23. A break is defined when a red/green or yellow fusion signal (F) splits into separate red and green signals. Only red and green signals which are more than one signal diameter apart from each other are counted as a break. Co-localized red/green or yellow signals identify the normal chromosome(s) 11.

Signal patterns other than those described above may indicate variant translocations or other complex rearrangements.

	Normal Signal Pattern	11q23 Split
Expected Signals	2F	1F1R1G

**References:** Thirman M et al, 1993, New Engl. J. Med., 329; 909-914  
Broecker PL et al, 1996, Blood, 87; 1912-1922

**Warning and precautions:** In case of emergencies check SDS sheets for medical advice. SDS sheets may be obtained by either contacting Leica Technical Support or visiting [www.LeicaBiosystems.com](http://www.LeicaBiosystems.com). DNA probes contain formamide which is a teratogen; do not inhale or allow skin contact. Wear gloves and a lab coat when handling DNA probes. All materials should be disposed of according to your institution's guidelines for hospital waste disposal.

**Reagent Storage and Handling:** Store at 2-8 °C. Reagents should not be used after the expiration date on the vial label.

**TECHNICAL SUPPORT** Technical support is available at [www.LeicaBiosystems.com](http://www.LeicaBiosystems.com) or +31 20 6919181 or via e-mail: [kreatech-support@leicabiosystems.com](mailto:kreatech-support@leicabiosystems.com).

**CUSTOMER SERVICE** Kreatech probes may be ordered through Leica Customer Service +31 20 6919181 or order via e-mail: [purchase.orders@leica-microsystems.com](mailto:purchase.orders@leica-microsystems.com).