Cat Nr/REE	KBI-10303
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English

For professional use only

Poseidon[™] Repeat Free[™] MLL (11q23) Break 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. MLL translocations result in the generation of fusion proteins that retain the MLL 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 MLL (11q23) Break Probe is optimized to detect translocations involving the MLL 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 a Poseidon FISH Kit providing necessary reagents to perform FISH (KBI-60002, KBI-60003 or KBI-60001) for optimal results.

- Critical region 1 (red): The distal MLL gene region probe is direct-labeled with PlatinumBright550.
- Critical region 2 (green): The proximal MLL gene region probe is direct-labeled with PlatinumBright495.
- Reagent:
 Poseidon 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 Poseidon FISH protocol.

Poseidon Repeat Free probes do not contain Cot-1 DNA. Hybridization efficiency is therefore increased and background, due to unspecific binding, is highly reduced.

Interpretation: The MLL Break 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 signals (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. Investigators are advised to analyze metaphase cells for the interpretation of atypical signal patterns.

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

References:

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

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